

QUEENSLAND SHEEP & WOOL INDUSTRY

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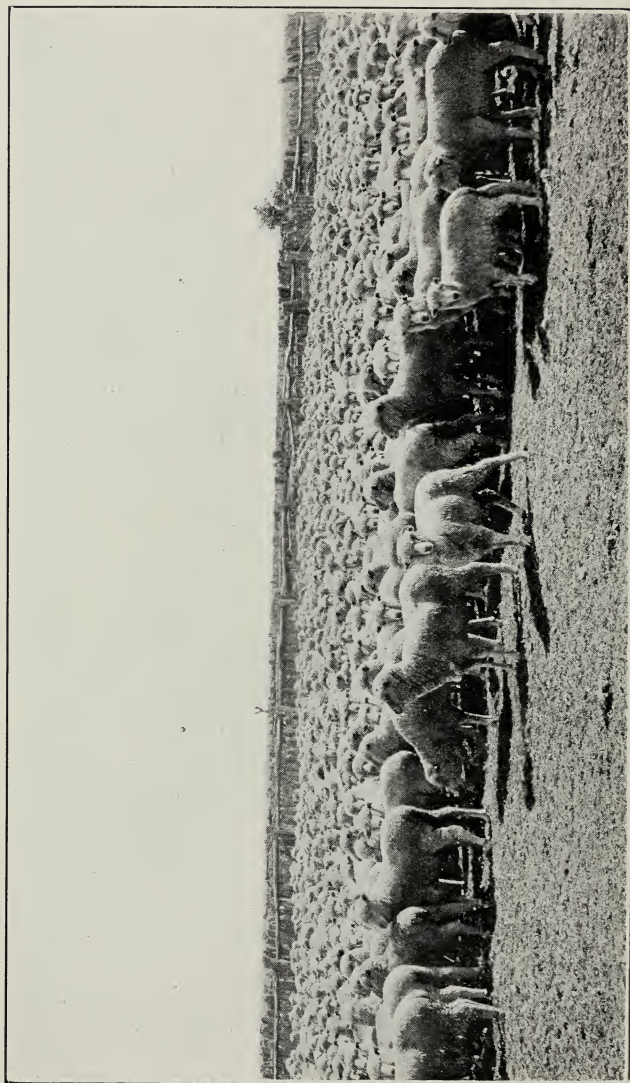
QUEENSLAND SHEEP & WOOL
INDUSTRY
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BY THE QUEENSLAND SHEEP & WOOL
INDUSTRY BOARD



Queensland Sheep and Wool Industry.

New Edition, 1918.

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Sheep on Oondooroo Station, near Winton (Central Queensland).

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Queensland . . . *Sheep and Wool Industry.*

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INTRODUCTION.

Queensland stands pre-eminent among all the States of the Commonwealth of Australia in regard to her pastoral possibilities. This particularly applies to sheep-raising. To-day



Mobs of Sheep on the Warrego River, S.W.Q.

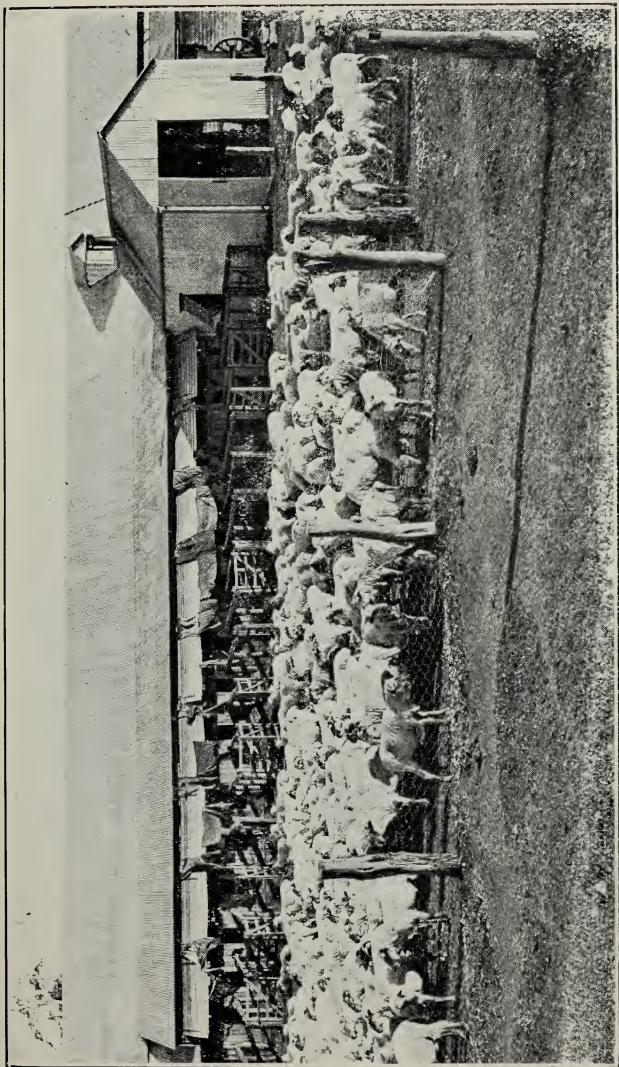
Queensland is the largest cattle-raising country in the Commonwealth of Australia, and it is only a matter of time when she will also be the largest sheep-breeder. Included in her territory of 429,120,000 acres, there are vast areas admirably suitable for greater pastoral development than is carried on at

the present time. The days of the large holdings, comprising hundreds, and even thousands, of square miles of country, are fast becoming a thing of the past. Future pastoralists will, in pursuance of the new policy adopted in regard to land settlement, have to be content with much smaller areas. Periodically, extensive runs are being reclaimed by the Crown, and cut up into small blocks for settlement under the different modes of the Land Act. The expiration of the leases of other runs, from time to time, also enables the Crown to further pursue the policy of making available smaller areas for new settlers. There is no gainsaying the fact, that the adoption of this policy has



Clump of Brigalow on a Western Station.

promoted closer settlement in Queensland to a very marked degree. It has also been the means of considerably increasing the carrying capacity of the country so far as stock is concerned. To substantiate this statement it is only necessary to compare the conditions of fifty-six years ago with those obtaining to-day. In 1860 (the days of the vast squattages or runs) the flocks of Queensland only numbered 3,166,802, whereas in 1916 these aggregated 15,524,293. Furthermore, a community of grazing farmers are now occupying the country, which a mere handful of large pastoralists held the leases of in the early days of the industry.



Shorn Sheep at Jondaryan Woolshed, Darling Downs (South Queensland).

In 1916, the area of the runs, grazing farms and home-steads, and occupation licenses in Queensland aggregated 325,343,681 acres, and carried 15,524,293 sheep, 4,765,657 cattle, and 697,517 horses. It is generally admitted that 10 acres of



Sheep on Thurulgoona Station, Cunnamulla District, S.W.Q.

country clothed with natural grasses will carry one horse or one cow with safety under normal conditions, and 5 acres of similar country will satisfy the wants of one sheep. Taking these deductions as to the carrying capacity of the country as approximately correct, there are 54,631,740 acres out of the pastoral areas of the State available for horses and cattle, and 270,711,941 acres for the depasturing of sheep. Now, calculating on five sheep to an acre, these 270,711,941 acres, if



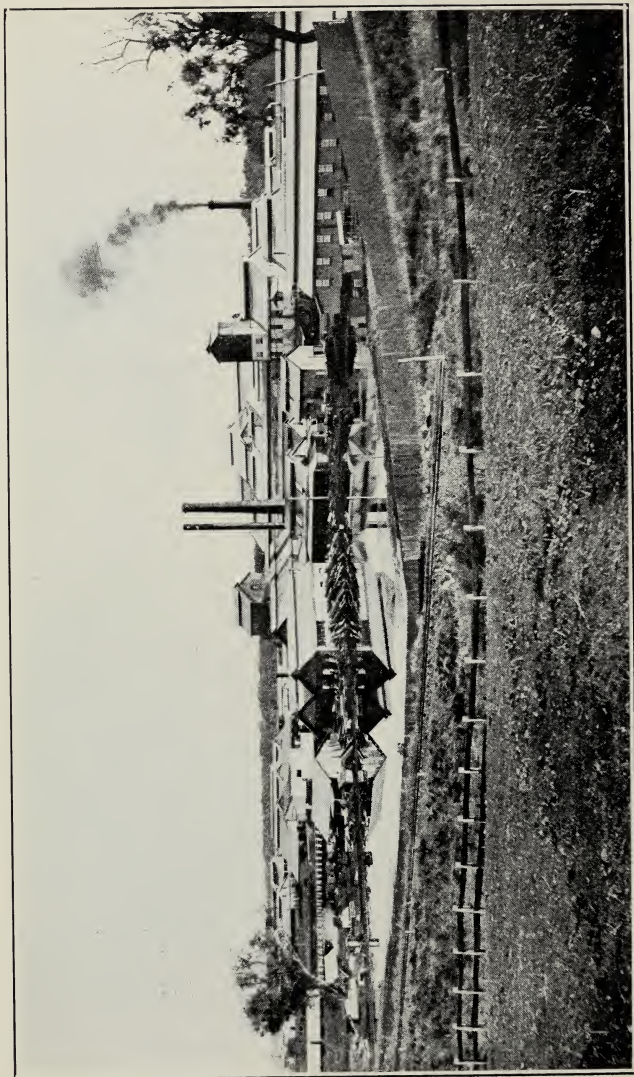
Sheep at Water Trough, Glenbuck Station, Barcaldine, C.Q.

stocked up to what is considered a safe and reasonable capacity, would carry flocks aggregating, at least, 54,142,388. By way of comparison, it may be stated that New South Wales, with an

area of 198,054,400 acres, carries 32,874,359 sheep (in 1891 she had 61,831,416); Victoria, with 56,245,760 acres, has 10,545,634 sheep; and Great Britain, with 77,683,084 acres, has 28,275,970 sheep. New Zealand, with an area of 67,040,640 acres, carries 24,788,150 sheep. In Queensland the grazing farms consist of small areas. All of the countries quoted also carry more or less large herds of cattle and horses. According to the opinion of a sheep expert, the coastal areas of Queensland, if cropped with artificial grasses and stocked with small flocks of British breeds and crossbreds, are capable of carrying three sheep to the acre. In point of fact, many millions of sheep could be safely depastured within the confines of these coastal areas. At the present time there are many thousands of the British breeds and crossbreds being successfully raised by farmers in a number of the districts within close proximity to the coast. Then again, what is known as the plateau country—such as the Darling Downs, portion of the Burnett district, Peak Downs, &c.—will, provided the holdings are adequately sub-divided into paddocks, run a sheep to the acre. The open rolling downs country to the west of the Great Dividing Range, with a more limited annual rainfall, will, on the natural grasses alone in a normal period, carry one sheep to 5 acres without running any risk of disaster. Were the sheep walks in these western areas reduced and sub-divided into paddocks, the carrying capacity of the country would be considerably increased. A close study of the foregoing remarks will demonstrate most conclusively that the writer's assumption as to the carrying capacity of Queensland so far as sheep are concerned is based on reasonably safe grounds. The pastoral areas of Queensland are not one whit less adaptable than those of Great Britain and the other States of the Commonwealth of Australia. That being so, our flocks should aggregate, at the least, between 70,000,000 and 80,000,000. That Queensland can carry more sheep than she is doing at present is exemplified by the records of past years. The following statistics speak for themselves:—

1891	..	..	20,289,633	1912	..	..	20,310,036
1892	..	..	21,708,310	1913	..	..	21,786,600
1910	..	..	20,331,838	1914	..	..	23,129,919
1911	..	..	20,740,981				

Queensland, in common with other parts of the world, has her bad, as well as good, times. This is particularly remarkable in regard to meteorological conditions. Hence it is that such a



*Central Queensland Meat Export Company's Meatworks, Lake's Creek, Rockhampton
(Central Queensland).*

marked fluctation is noticeable, at stated periods, in the total number of our flocks. Usually a cycle of good seasons is followed by a more or less short period of drought. The bad seasons, which are disastrous while they last, do not, as a rule, extend over more than a year or two. In one or two instances these have even been more prolonged. The good seasons,



Sheep on Glenbuck Station, Barcaldine, C.Q.

fortunately, have an uninterrupted run, generally, of about ten years. Though Queensland suffers severely from these droughts, it is, however, wonderful how quickly she recovers. The recuperative properties of the country in this respect are marvellous, and under the beneficent influence of copious showers of rain the face of Nature quickly assumes a verdant hue. The following figures will show how the numbers of the flocks have fluctuated during the past five periods of 10 years:—

1876.	1886.	1896.	1906.	1916.
7,315,074	9,690,445	19,593,696	14,886,438	15,524,293

Ordinarily, the annual rainfall of Queensland is ample for the successful carrying on of pastoral pursuits. In the coastal districts it ranges from 30 inches to 147 inches, on the plateaux from 27 inches to 42 inches, in the central-western districts.

from 16 inches to 28 inches, and in the far-western districts from 10 inches to 19 inches. These average rainfalls extend over periods exceeding 60 years.

Under ordinary circumstances, there is an abundance of natural grasses for stock in Queensland. The coastal areas are particularly well favoured in this connection. In the western districts the natural grasses consist chiefly of Flinders, Mitchell, and blue, and a great many varieties of herbage, all of which are highly nutritious. Unlike the grasses, &c., in the coastal areas, those in the Western areas do not require the same amount of moisture to sustain their growth. All portions of the State are well watered with permanent streams, and in the western districts several thousands of artesian and sub-artesian bores provide an abundant supply of water for the stock. The hot, dry atmosphere in the western districts has a refining influence on the texture of the wool, and as a result the clip invariably commands top prices. The western districts are the home of the Merino sheep, the flocks numbering many millions. On the other hand, the coastal districts are becoming the home of the British and crossbred strains.

It is claimed by experts that Queensland is the healthiest country in the world for the breeding of stock, more especially sheep. She is totally free from any serious diseases in sheep—such as anthrax, fluke, &c.—and those that do exist are chiefly of a parasitic order, such, too, that are common among sheep throughout the pastoral world. Prompt efforts are made to combat these pests, and a staff of experts attached to the State Department of Agriculture and Stock is kept busily engaged conducting experiments with the object of exterminating them.

By way of explanation, it may be mentioned that no attempt has been made by the Compiler to make this publication a text book on the Sheep and Wool Industry of Queensland. The letterpress, however, is based on official and expert information gathered by the Compiler, and is written in plain language so that it may be intelligible to all intending settlers.

SIZE OF STATIONS.

Though the majority of the pastoral holdings consist of grazing farms aggregating from 10,000 to 60,000 acres, there are a fairly large number of runs, which comprise hundreds, and



BORES ON SOUTH-WESTERN STATIONS.

1. *Tinnenburra, Cunnamulla District.*
2. *Norindoo, Surat District.*
3. *Grazing Farm, Cunnamulla District.*

even thousands, of square miles of country. These extensive stations are all situated in the interior of Queensland. Warenda Station (Boulia district, Central Queensland), with an area of 5,000 square miles of country, is claimed to be one of the largest of its kind in the Commonwealth of Australia. Previously it was a cattle run; to-day it is carrying over 100,000 sheep. The bulk of the grazing areas are leased from the Crown on lengthy tenures, but there is also a big tract of country held as freehold chiefly by wealthy companies. The lessees of vast runs or stations are called pastoralists or squatters, while those holding leases for smaller areas are designated grazing farmers.



Sheep on Garfield Station, Jericho District, C.Q.

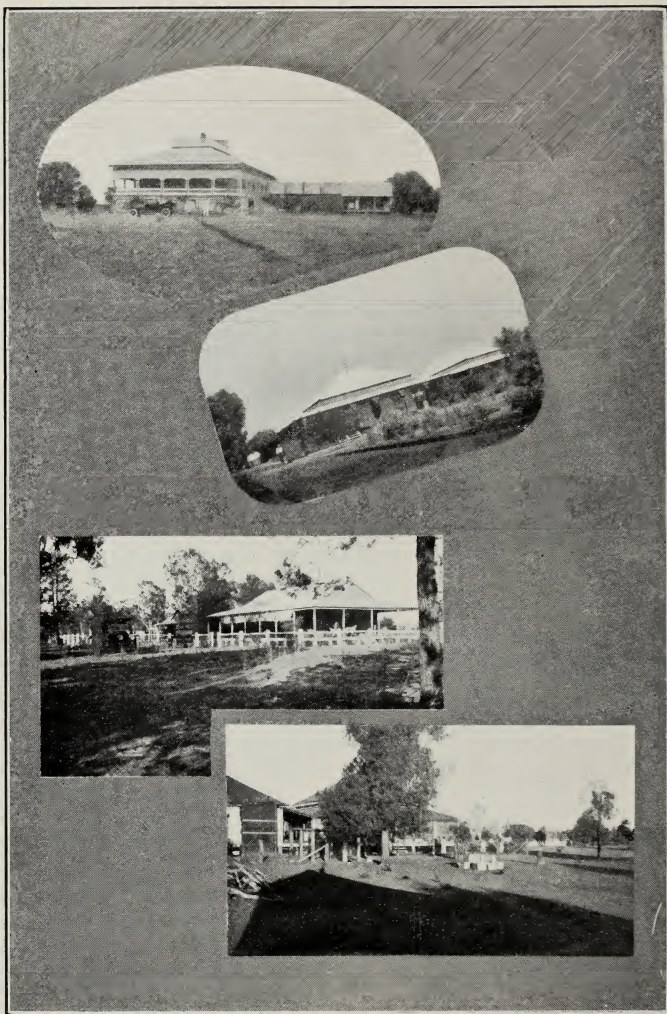
The following is a list of the stations in Queensland carrying the greatest number of sheep in 1916:—Wellshot (Ilfracombe district, Central Queensland), 141,174; Terrick Terrick, Lorne, Mount Mistake, &c. (Blackall district, Central Queensland), 140,307; Milo (Adavale district, South-Western Queensland), 136,951; Darr River Downs and Bunnington (Longreach district, Central Queensland), 127,000; Northampton Downs, Ravensbourne, &c. (Blackall district, Central Queensland), 114,434; Bowen Downs (Aramac district, Central Queensland), 109,237; Thylungra (Thargomindah district, South-Western Queensland), 101,309; Warenda, Goodwood, &c. (Boulia district, Central Queensland), 100,126; Cambridge Downs (Richmond district, North Queensland), 98,831; Oondooroo (Winton district, Central

Queensland), 98,236; Evesham (Longreach district, Central Queensland), 96,950; Home Creek and Delta (Barcaldine district, Central Queensland), 95,000; Rockwood, Tower Hill, &c. (Tangorin, North Queensland), 89,015; Afton Downs, &c. (Hughenden district, North Queensland), 88,979; Vindex (Winton district, Central Queensland), 83,464; Mount Cornish (Aramac district, Central Queensland), 82,550; Portland Downs (Isisford district, Central Queensland), 82,546; Toorak (Nelia, Cloncurry district, North Queensland), 82,000; Llanrheidol (Winton district, Central Queensland), 80,480; Lerida (Corfield, North Queensland), 77,181.

There are seven other stations carrying 70,000 and upwards sheep, six with 60,000 and upwards sheep, fifteen with 50,000 and upwards sheep, in addition to a large number of others with from 40,000 down to a few thousands.

Mr. E. Jowett, who has stations in all divisions of the State of Queensland, is one of the largest sheep-breeders. He and his family are interested in no less than twenty-six stations, and their flocks aggregate about 400,000. The Australian Pastoral Company, which has half-a-dozen large stations in the St. George district (South-Western Queensland), is also a large breeder. Its flocks number over 115,000. The New Zealand and Australian Land Company, which has a number of large stations in different parts of the State, has nearly 500,000 sheep, the many holdings of the Australian Estates and Mortgage Company, Ltd., carry 270,041 sheep, the holdings of the Milo and Welford Downs Pastoral Company (South-western Queensland) carry 153,406 sheep, and the Northampton Pastoral Company (Central Queensland) has on its holdings over 160,000 sheep.

On well-conducted stations and large grazing farms, the holding is sub-divided into a number of paddocks, and, as a result, its carrying capacity for sheep is considerably increased. The boundary fences of a number of the large runs are securely enclosed by rabbit-proof wire netting. This is particularly the case with the stations close to the southern and western borders of Queensland. In districts subject to the incursions of the rabbit the lessees of runs and grazing farms are compelled by the Crown to enclose their areas with rabbit-proof netting. The adoption of these precautions has prevented the pest from infesting all the pastoral areas of the State. Large numbers, however, have made their appearance in the South-western



HOMESTEADS IN CENTRAL AND SOUTH-WESTERN QUEENSLAND.

1. *Eurella, Muckadilla District.*
2. *Alice Downs, Blackall (Central Queensland),*
3. *Moorenbah, Dirranbandi,*
4. *Minimi, St. George.*

districts, but strenuous efforts are being made by the various Rabbit Boards to bring about their extermination. The rabbit netting required for the enclosing of the pastoral areas is supplied to the pastoralists and grazing farmers by the Crown, the repayments for its cost, cartage, and railage to the nearest railway station extending over periods of from ten to twenty-five years. The repayments may be made under the following terms and conditions:—Ten annual instalments of £12 6s. 7d. per cent., fifteen annual instalments of £8 19s. 11d. per cent., twenty annual instalments of £7 7s. 2d. per cent., or twenty-



Merino Stud Rams on a Western Station.

five annual instalments of £6 8s. per cent. Interest at the rate of 4 per cent. per annum is also added. That the rabbit is being kept in check is evidenced by the fact that the pest has not made its appearance in the Central or Northern Divisions of the State.

Steps have been taken, quite recently, to put the rabbit to commercial use. Large numbers are trapped annually, then frozen, and eventually sold in the large cities as a dainty table viand. The furs of the animals are also utilised profitably. There are several freezing establishments in the State, where rabbits are treated for human consumption. The value of the output of frozen rabbits and furs, in 1916, was over £1,000.

Note.—The foregoing figures in regard to the number of sheep on the various holdings quoted are taken from the Stock Return for 1916 issued by the State Government Statistician.

SHEEP MARKETS.

Buyers from all the principal meatworks of the State regularly visit the sheep districts in quest of fat stock for killing purposes. Local buyers in the large centres also do much business annually in this respect. The leading stock and station agents of Queensland, through their country representatives,



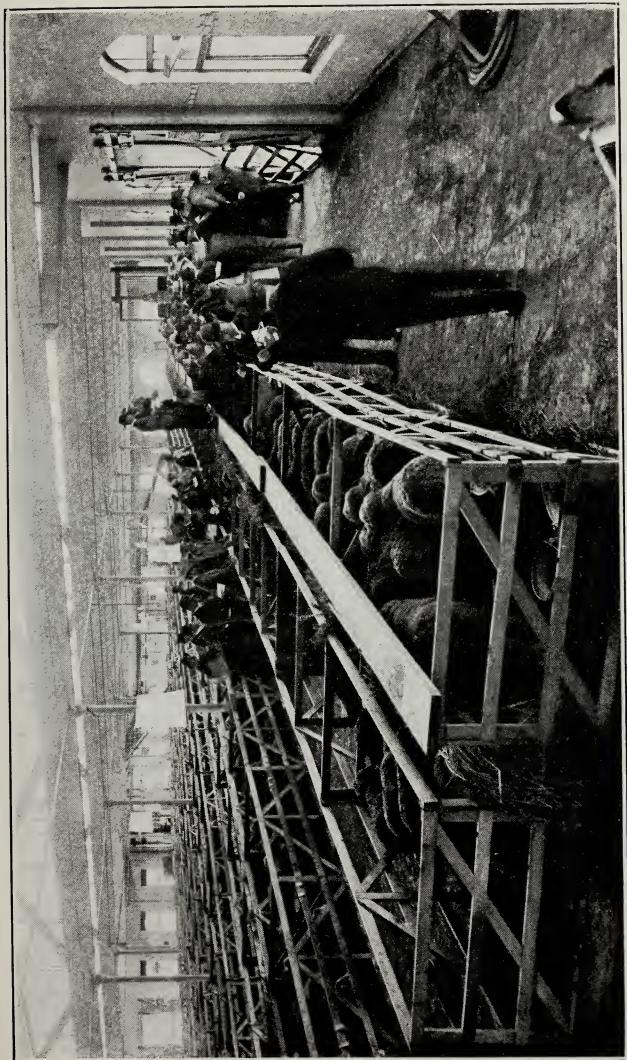
Train load of Fat Sheep leaving Longreach, C.Q.

bring about the sale of large numbers of sheep throughout the year on behalf of pastoralists and grazing farmers. These transactions are carried out on commission, and it is largely through the instrumentality of these agencies that pastoralists and grazing farmers are enabled to dispose of their surplus stock or acquire animals for stocking up purposes. The new settler



Jimbour Woolshed (S.Q.)—7,000 sheep ready for shearing.

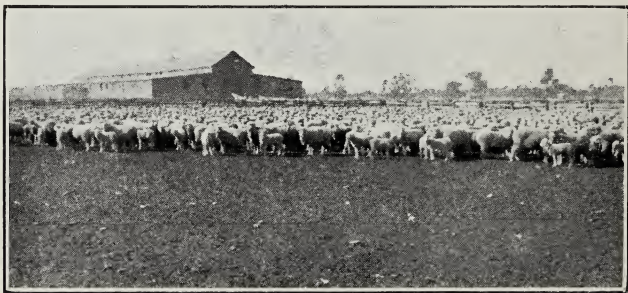
usually adopts this way in which to secure flock rams and ewes for stocking his holding. Stud stock are also obtained through the agency of these firms, though the majority of the large sheep-



Dalgety and Company's Sheep Sale Rooms, Bulimba, Brisbane (South Queensland).

breeders purchase their stud animals from the stud stations in the Southern States or at the stud sheep sales, which are periodically held in the capitals of the Commonwealth.

A considerable amount of dealing in store sheep, off the shears or partly and fully woolled, is engaged in by pastoralists and grazing farmers. The former generally buy stores in large numbers, and, after fattening them, sell them to the meatworks. The grazing farmers' transactions are, naturally, on a more modest scale. As soon as the stores are fattened, they are sold to the local butcher, meatworks, or sent to the Brisbane market. Often a number of grazing farmers co-operate, make big purchases of store stock, and fatten them for market on their respective holdings. Drovers are, as a rule, engaged to handle the purchases of the pastoralists, while it is customary for the grazing farmers to do their own droving.



Shearing Time on Claverton Station, Cunnamulla District. S.W.Q.

A great number of the sheep purchased in the country are for killing purposes, and consist of fats, more or less fully woolled. Though flocks are often droved long distances, after purchase, to their destinations, yet, in districts where the railway line is handy, the sheep are, usually, transported to the meatworks or other purchasing agency by rail. A study of the illustration appearing elsewhere in this book will convey some idea of what these sheep trains are like. The bulk of the sheep are, however, shifted from place to place by drovers. This refers particularly to stores that are removed, after purchase, from one holding to another with the idea of fattening them for

market. In other instances, sheep are removed from one holding to another during the shearing season, or because of the scarcity of grass in a certain district. In such cases, long journeys by road are accomplished, and these frequently cover a distance of hundreds of miles. Under normal conditions, there is an abundance of water and grass along the route, and the droving parties do not experience great difficulty in delivering the stock in good condition.

Droving has its advantages and disadvantages. When climatic conditions are favourable, grass and water plentiful,



Musterers on Milo Station, Adavale District, S.W.Q.

and the sheep contented, the lot of the drover and his stock-hands is, though of a strenuous nature at all periods of the trip, not without its attractions. Generally speaking, it is a healthy occupation, and there is also an element of adventure associated therewith. On the other hand, when the seasons are adverse—that is to say, very dry or very wet—the life of the drover is anything but congenial. As a rule, the animals give a great deal of trouble under such circumstances. Nevertheless, it is seldom that Queensland drovers suffer heavy losses with their



Classing Wool at Claverton Station, Cunnamulla District (South-Western Queensland).

flocks on the road—a fact due, in a great measure, to the careful manner in which the animals are handled at all stages of the journey.

The following are the ruling prices now being paid for Merino and the British breeds of sheep for stocking up purposes:—Merino flock ewes (off shears or partly and fully woolled), from 25s. to 35s. per head; wethers, from 21s. to 30s.; lambs and hoggets, from 15s. to 20s.; flock rams, from 63s. to 105s.; British breeds—flock ewes, from 40s.; flock rams, from 105s. Stud rams range from 20 guineas to over 1,000 guineas, high prices being frequently paid for the Merino strain.

An analysis of the Enoggera (Brisbane) fat stock market shows that the undermentioned top prices were realised for sheep during 1917:—Merino wethers, from 34s. to 58s. per head; ewes, 14s. 3d. to 42s. 6d.; crossbred wethers, from 35s. 6d. to 55s.; ewes, from 32s. 3d. to 47s.; lambs, 30s. 3d. to 46s. 6d. It may be stated that the market fluctuated a great deal from month to month so far as top prices were concerned. The average price for fat sheep in the Brisbane markets ranges from 5d. to 5½d. per lb., plus the value of the skins. This means that sheep fully or partly woolled, if in good condition, fetch a much higher price than animals that are shorn. As high as 9d. per lb. has been realised; prior to the outbreak of war, the average price was about 4d. per lb. The following are the average dressed weights of fat sheep:—Merino wethers, 50 lb.; ewes, 40 lb.; hoggets, 35 lb.; lambs, 32 lb.; crossbred wethers, 55 lb.; ewes, 45 lb.; hoggets, 40 lb.; lambs, 35 lb. According to the opinion of an expert in the butchering trade, the foregoing weights of fat stock are most favoured by butchers and the public generally. Frequently, however, pens of sheep are sold in the local markets, whose weights, when dressed, are considerably more than those quoted above.

LIFE ON A SHEEP STATION.

Most of the large sheep stations in Queensland resemble small townships. The homestead, which is invariably a commodious building, is surrounded by a number of other more or less substantial structures, such as woolshed, store, offices, cottages for the permanent hands, and quarters for the shearers. Telephonic communication is also established not only on all

these stations, but with a great many of the grazing farms as well. In many instances the attractiveness of the homestead is added to by well laid-out flower, vegetable, and fruit gardens. Then again, in quite a number of homesteads electric light and acetylene gas have been installed as an illuminant.

When the shearing season is in full swing, the station is the scene of more than ordinary activity. If it is a large station, with a large number of sheep to be shorn, the number engaged thereon for the occasion is considerably increased. During



*Drying Wool on Grass at Claverton Station,
Cunnamulla District, S.W.Q.*

the shearing season everything is carried out with clocklike precision, and as fast as the musterers arrive with flocks of fully-woolled sheep, these are drafted into the pens attached to the woolshed. These pens are close to each shearing stand, the number of which varies according to the size of the woolshed and the number of sheep to be shorn. The shearing is done by machinery, driven by either steam or electricity. In the early days of the industry all the shearing was carried out by hand, and some exceptionally high daily tallies by skilful men were recorded. Though these record tallies have not been eclipsed by the machines, still a greater amount of all-round efficiency and

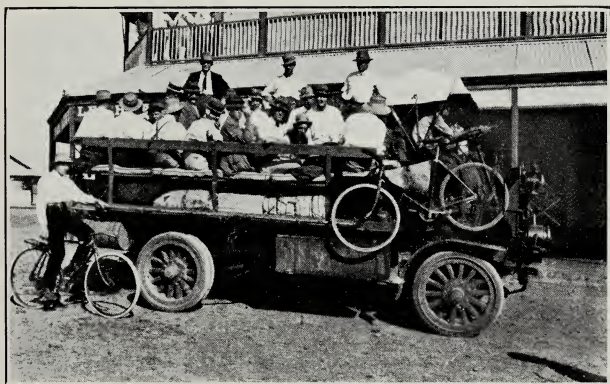


1. Woolshed and Shearers' Quarters, Woodlands, Maranoa River.
 2. Shearers' Quarters, Murweh, Charleville District.
 3. Woolshed, Thuraggie, St. George.
 4. Woolshed, Bonus Downs, Mitchell.
 5. Shearers' Quarters, South-Western Station.
- (All in South-Western Queensland.)

expedition has been attained. Every shed has its ringer, who shears a large number of sheep daily much more rapidly than the general run of men. Quite a number of shearers in Queensland put through over 200 sheep in a day. In many of the woolsheds there are from thirty to forty stands. One woolshed, however, stands out prominently in regard to its shearing capacity. The Isis Downs Woolshed, in the Isisford district (Central Queensland), has fully fifty stands, and it is claimed to be one of the best equipped sheds in the Commonwealth. The Tinnenburra Woolshed, in the Cunnamulla district (South-western Queensland), is the largest of its kind in the Commonwealth, and has 100 stands. Among other large woolsheds may be mentioned:—Darr River Downs (Longreach district, Central Queensland), Wellshot (Ilfracombe district, Central Queensland), Lorne and Northampton Downs (Blackall district, Central Queensland), Portland Downs (Isisford district, Central Queensland), Warendra (Boulia district, Central Queensland), Maxwelton and Marathon (Richmond district, North Queensland), Oondooroo (Winton district, North Queensland), and Milo (Adavale district, South-western Queensland). All of the woolsheds referred to shear over 100,000 sheep during the season.

As soon as a sheep is shorn, it is transferred to a pen close by, and is then passed down a ramp into the yard, from which the shorn animals are removed later in the day to different paddocks on the run. Occasionally sheep are cut by the shears, and in such cases the tarboys are kept busy smearing the injured parts of the animals with "tar" (diluted sheep dip). Formerly tar was generally used. As soon as the belly wool is shorn from the sheep, the picker-up gathers it, and puts it into a basket. Then, when the wool is completely removed from the sheep by the shearer, the picker-up carries it away, and throws it on the wool-rolling table in another portion of the building. The trimmings or board locks are meanwhile swept up by another picker-up, and placed in a basket. The wool-rollers skirt and roll up each fleece, which is next passed on to the classing table, where it is classified by the classer, each variety being placed in different bins. The skirtings are sorted into different grades by piece-pickers, all stained pieces of wool being kept separate. The presser next takes the wool from the bins, according to its quality, and, by means of a press (controlled by hand or motive power), the wool is pressed into bales. Finally, these bales are weighed and branded (in stencil) with the station

brand, quality of the wool, sex of sheep, and number on one side of the bale. Carriers then come along, and after loading the bales of wool on to their wagons or lorries, carry them away to the nearest railway station. Eventually the wool is transported by rail to the wool stores of the metropolitan firm intrusted with its sale. In some cases the wool has also to be carried by boat before it reaches the rendezvous chosen for its sale. Though horses and bullocks are generally used by the carriers in their wagons or lorries for carrying purposes, a number of motor lorries are also used in different pastoral districts.



Shearers leaving Longreach (C.Q.) for Darr River Downs Station.

Fully 80 per cent. of the shearing in Queensland is done by contract. A good deal of the shearing for the small grazing farmers is carried out at the woolsheds on large stations within close proximity; also by contractors with portable plants, or at several of the wool-scouring establishments.

During the shearing season the number of hands employed on a large station aggregate over 100.

Under the provisions of the Shearers and Sugar Workers' Accommodation Act, pastoralists and grazing farmers are compelled to erect quarters for the comfortable accommodation of shearers and general station hands during the shearing season. The shearers and others engaged in the shearing operations supply their own cook.



Shearing at Jondaryan Station, Darling Downs (South Queensland).

In the off season there is always plenty to do for the permanent hands on a large station; such as looking after the ewes during the lambing season, lamb-marking, dipping sheep, dehorning rams, inspecting artesian drains and boundary fences, mustering and removing stock from one holding to another, and attending to stud stock.



Stud Sheep at Wiyarra, Warwick District, S.Q.

The lambing season extends over the greater part of the year. The period most favoured is when there is an abundance of green feed.

Passing reference must be made to the useful work performed by sheep dogs on stations. A well-trained dog is an invaluable asset to the musterer and drover. The amount of intelligence these animals display is simply marvellous.

THE SHEARING SEASON.

Shearing is carried on in Queensland from January to December. Many pastoralists and grazing farmers, however, favour shearing in spring, others in autumn, and others in winter. Those who favour getting their flocks shorn before the autumn season sets in do so in order to avoid having their wool affected by grass seed and burr. Years ago shearers travelled

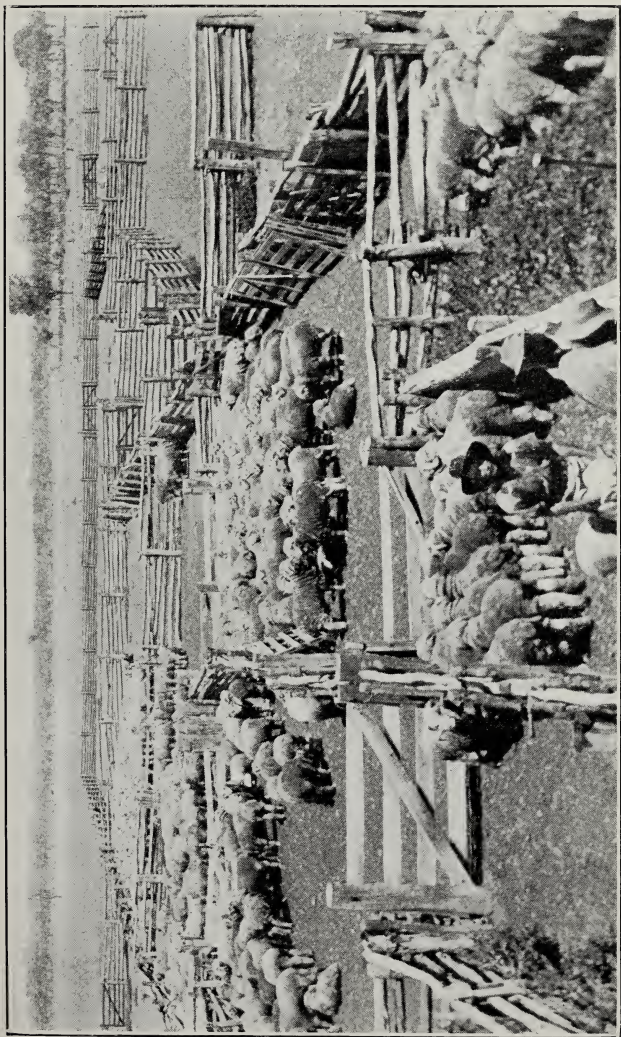
from woolshed to woolshed by means of bicycles, with their kits strapped to the machine. To-day, motor-cycles, motor-cars, and motor-lorries are more generally used. Shearing is a very lucrative occupation, and the majority of the men engaged therein earn big cheques during the year. Those of a frugal frame of mind bank their earnings, and at the end of the season return home with fairly substantial cheques. Many of these eventually take up a block of country, and become successful as grazing farmers.



Shearers leaving Longreach (C.Q.) for Corona Station.

The following are the minimum rates fixed by the Commonwealth Court of Conciliation and Arbitration on the 28th June, 1917, for the payment of shearers and station hands for a period of three years from date:—

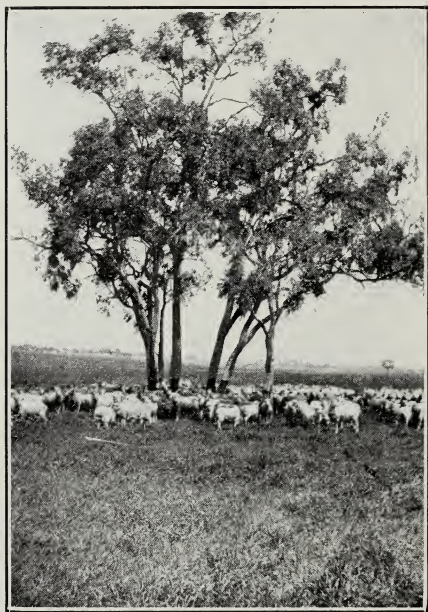
Shearing—For flock sheep (wethers, ewes, and lambs), 30s. per 100; for rams over six months old (other than special stud rams) and for ram stags, 60s. per 100; for stud ewes and their lambs (other than special studs), 37s. 6d. per 100; for special studs as specially agreed, but so that if the engagement be per day the rate shall not be less than 17s. per day, with cook and rations, and shearing requisites found. If rations are found, a reduction of 20s. per week is made.



Dehorning Rams on Biddenham Station, Charleville District (South-Western Queensland).

Shed Hands—For adults, £3 per week and found; boys (between 18 and 21 years of age), 37s. 6d. per week and found; boys (under 18 years of age), 30s. per week and found.

Wool-pressers are paid by piecework at from 4 $\frac{3}{4}$ d. per cwt. or 1s. 3 $\frac{1}{2}$ d. per bale to 10 $\frac{3}{4}$ d. per cwt. or 2s. 3 $\frac{1}{2}$ d. per bale, according to whether the work is done by hand or power. If dumping is included, from 1 $\frac{3}{4}$ d. per cwt. or 5d. per bale to 2 $\frac{3}{4}$ d. per cwt.



Shropshires on North Toolburra, Warwick, S.Q.

or 5 $\frac{1}{2}$ d. per bale extra is also paid. For weighing and branding, an additional 3d. per bale on the above rates is paid. The rates quoted are for handling of both greasy and scoured wool.

Wool-scourers—Adults, £3 per week and found; boys (between 18 and 21 years of age), 37s. 6d. per week and found; boys (under 18 years of age), 30s. per week and found.

Cooks receive 6s. per week and found for every man for whom they cook, or, at least, 72s. per week and found. Cooks permanently employed on a station receive 48s. per week and found. If a female cook is required by the employer to cook for any station hand except her own family, although she may work at the homestead, she would, if a member of the Australian Workers' Union, be entitled to the full station hands' rates under the award of 48s. per week and found.

Station hands are paid 48s. per week and found, or 63s. per week, without keep; boys (between 18 and 21 years of age), 20s. per week and found; boys (under 18 years of age), 15s. per week and found. Station hand does not include female domestics working only at the homestead, or any male domestic who has no duties outside the house. All station hands come under the award if they are members of the Australian Workers' Union, except those exclusively engaged in farming or dairying operations or work distinct from pastoral pursuits. Where a station hand has to find his own horse, he shall be paid a further sum of not less than 3s. per week, and when he has to find his own saddle, a further sum of not less than 1s. per week.

The rate for boundary riders is 40s. per week and found, or 55s. per week, without keep.

In the case of boundary riders, station hands, or married men (whose wives do not work on the station), and who are not found, the employer can deduct for allowances and perquisites an amount not exceeding 30s. per week, but the items constituting these allowances or deductions must be approved of by the Union or Board of Reference.

The award also provides that the hours of labour at the homestead must not exceed 52 per week. Overtime at the rate of time and a-half for the first two hours, and double time thereafter for all time worked in excess of the 52 hours per week.

Note.—The rates for station hands only apply to those respondents mentioned in the award fixed by the Commonwealth Court of Conciliation and Arbitration.

Wool-classers are paid according to their qualifications and the number of sheep they handle in a shed. Usually they get 20s. per 1,000 sheep shorn.



Students at work in the Wool Room at the Central Technical College, Brisbane, S.Q.

At the Central Technical College (Brisbane) the students are given practical and theoretical instruction in all phases of the sheep and wool industry. Furthermore, the students grade unclassified wool for the State Wool Committee and wool-brokers. The College, which is under the control of the State Government, is splendidly equipped, and instruction is imparted to the students by a staff of experts. During the shearing season every year batches of students visit a number of the large stations in Queensland, and, in addition to doing general shed work in the woolshed, receive instruction in wool-rolling, piece-picking, and classing. The stations generally visited are:—Jondaryan (Darling Downs, South Queensland), Eurella and Bindango (Maranoa district, South-western Queensland), Claver-ton and Murweh (Warrego district, South-western Queensland).



Loading Wool at Jimbour Woolshed, Dalby District, S.Q.

The students are charged £4 4s. per quarter for daily instruction. Night classes are conducted for those who cannot attend in the day-time. All returned soldiers, desirous of acquiring a knowledge of the Sheep and Wool Industry, are given instruction free of charge. Wools from different districts are also tested at the College daily in order to ascertain the percentage of clean wool present in each sample.

INITIAL COST OF STARTING AS A GRAZING FARMER.

The average annual rental of a grazing farm of about 20,000 acres is 2d. per acre. The cost of survey is £86, and the annual rent during the first period of seven years would be £166 13s. 4d. The cost of survey is distributed over five equal payments during first five years of the lease.

With capital totalling £5,000, an intending settler can safely take up a grazing farm of 20,000 acres in the western districts of Queensland. Many of our present-day successful pastoralists and grazing farmers started with much less capital. As an investment, sheep-raising is one of the most profitable in Queensland under ordinary conditions. No other industry offers greater possibilities to the intending settler for the safe investment of his capital.

According to Mr. W. G. Crothers, of Moorenbah Grazing Farm, near Dirranbandi (South-western Queensland), his initial cost in starting sheep raising on a block of country, aggregating 40,000 acres, in 1906, was as follows:—

	£	s.	d.
First year's rent at 1d. per acre	166	13	4
One-fifth survey fee	12	0	0
Fencing 40 miles (half share) at £20 per mile ...	400	0	0
Excavated tank	60	0	0
Well	15	0	0
Hut and sheep yard	75	0	0
Temporary bough woolshed (with capacity for handling 20,000 sheep)	20	0	0
Woolpress	60	0	0
Dray	10	0	0
Two horses	40	0	0
Harness, tools, and sundries	40	0	0
Wages and rations for one man (per year) ...	100	0	0
Maintenance of self, wife, and six children (first year)	100	0	0
Total	£1,098	13	4

It will be noticed that Mr. Crothers did not put down an artesian bore on his holding. In point of fact, he had no need to do so, as his country was well watered by one or two creeks. Had a bore been necessary, it would have involved an expenditure of about £2,250—that is, reckoning on one with a depth of 1,500 feet.



HOMESTEADS IN DIFFERENT PARTS OF QUEENSLAND.

1. *Mount Abundance, Roma (South-Western).*
2. *Bimbah, Longreach (Central).*
3. *East Talgai, Ellinthorp (Darling Downs, S.Q.).*

Mr. A. A. Moore, of Bonathorne Grazing Farm, Dirranbandi, states that he started in 1906 with a capital of £2,500. His initial expenditure was as under:—

	£	s.	d.
First year's rent on 20,000 acres at 1½d. per acre	104	3	4
One-fifth survey fee	12	0	0
Fencing 30 miles of sub-division at £30 per mile	900	0	0
Cost of excavated tank	300	0	0
Well and windmill, &c.	130	0	0
Use of artesian bore water (per year)	20	0	0
Woolshed (with six shearing machines driven by oil engine)	300	0	0
Woolpress and scales	40	0	0
Dray	20	0	0
Lorry	38	0	0
Four horses	80	0	0
Harness	20	0	0
Wages and rations for one man (per year) ...	135	0	0
Keep for self and married couple (per year) ...	300	0	0
House and furniture	260	0	0
Stock and sheepyards	70	0	0
Total	£2,729	3	4

The following is an expert estimate of the approximate initial cost of starting on a 20,000-acre grazing farm:—

	£	s.	d.
First year's rent, at 2d. per acre	166	13	4
One-fifth survey fees	17	4	0
Fencing 23 miles, less 7 miles contributed by adjoining selectors = 16 miles, at £30 per mile	480	0	0
Hut and sheepyard	75	0	0
Woolshed for five shearers	70	0	0
Woolpress	30	0	0
Dray	15	0	0
Two horses	40	0	0
Harness, tools, and sundries	40	0	0
Wages (one man) and rations for year	100	0	0
Artesian bore, say, 1,500 feet	2,250	0	0
Sundries	62	11	8
Total	£3,346	9	0

The above estimate is calculated on conditions prevailing prior to the outbreak of the present war. At the present time it is impossible to give anything like a reliable estimate, owing

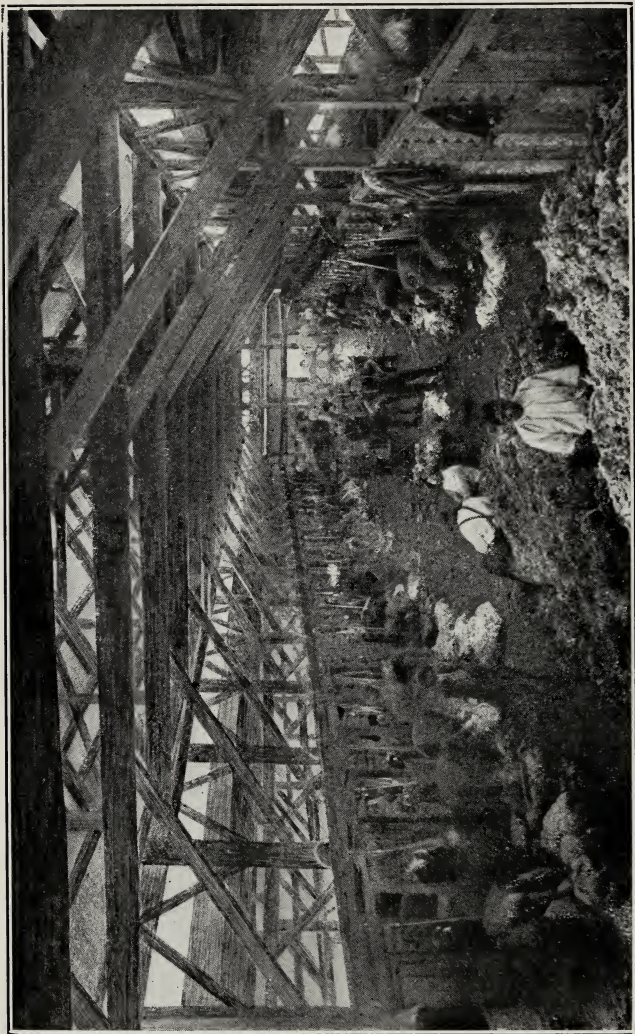
to the abnormal ruling prices for materials required in connection with the establishment of a grazing farm. Galvanised iron wire for fencing, wire netting, &c., are practically unprocurable. However, the last-named estimate will give some idea of the probable cost of starting as a grazing farmer on a block of 20,000 acres.

A grazing farm such as given in the above example, including the improvements mentioned, could work 6,000 sheep safely. This number, with ordinary management, would return £2,500 a year net, after paying all expenses. The carrying capacity



Mixed Farmer's Sheep, Warwick District, S.Q.

of the farm may generally be increased by subdividing—that is to say, if the farm is divided into, at least, four paddocks, it will carry, over a series of about ten years, 4,000 ewes and 2,400 lambs—that is, reckoning the lambing at 60 per cent.—or a total of 6,400 sheep. Every 1,000 ewes means, at least, £500 a year profit. Incidentally, it may be mentioned that the ring-barking of the trees on a holding adds considerably to its carrying capacity.



Tinnemburra Woolshed, Cunnamulla District (S.W.Q.)—40 shearers, averaging 3,800 sheep daily.

Calculating on one sheep to every 5 acres on a 20,000-acre block subdivided into four paddocks, the holding would carry



Stud Merino Rams at Glengallan, Warwick, S.Q.

4,000 sheep—3,880 ewes and 120 flock rams. The cost of procuring this stock at the present time would be, approximately:—

3,880 ewes (off shears), at 25s.	...	...	...	...	£4,850
120 flock rams, at 80s.	...	...	...	...	480
Total cost	...	..	...	...	£5,330

The approximate returns from the flock of 4,000 sheep for the year would be:—

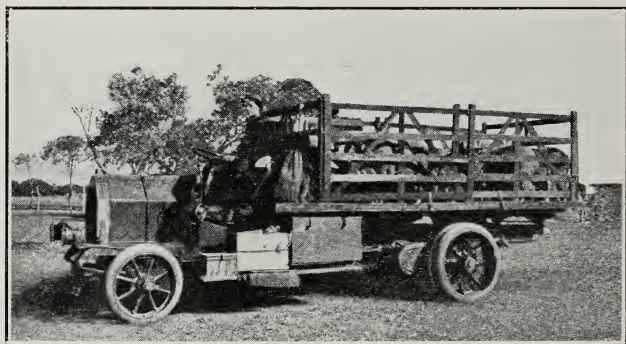
Wool off 4,000 sheep (7 lb. each), at 15½d. per lb.	£1,808	6	8
60 per cent of lambings on 3,880 ewes—2,328—			
at 10s. per head	...	...	1,164 0 0
Total returns	...	...	£2,972 6 8

The approximate expenditure in connection with the shearing of the flock, cartage of the wool to market, &c., would be:—

Shearing 3,880 ewes at 11d. per head (including rouseabouts)	£177 16 8
Shearing 120 rams at 1s. 10d. per head (including rouseabouts)	11 0 0
Carriage of wool to market at 1s 2d. per head	233 6 8
Extra labour and sundries (11d. per head) ...	183 6 8
Total	£605 10 0

From the foregoing figures it will be seen that the approximate net return for the year would be £2,366 16s. 8d.

A study of the foregoing figures will demonstrate that the value of the wool on the back of each of the fully-grown flock is worth, approximately, 9s. On the other hand, the working



Transporting Flock Rams from Longreach (C.Q.) to Eureka Station, Alpha District (C.Q.).

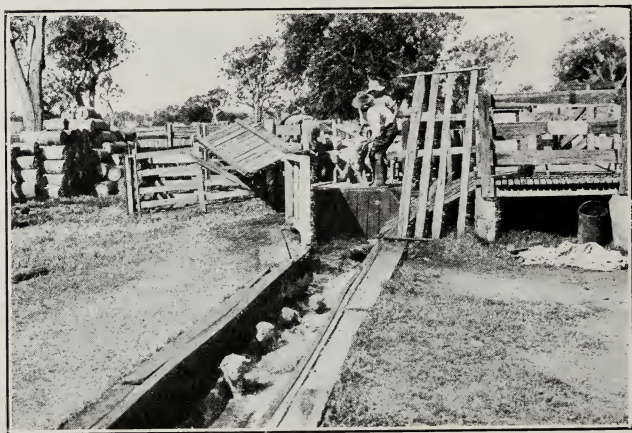
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expenses in connection with each sheep is, roughly, 3s. 10d., made up as under:—All shearing charges, 11d.; carriage to market, 1s. 2d.; rent for five acres, 10d.; sundries, 11d. This leaves a net profit of 5s. 2d. per sheep. It will be noticed that the estimate of cost per sheep is based on the minimum carrying capacity of the holding—that is, one sheep to every five acres. As has been stated in this book, the carrying capacity of such a holding can be considerably increased by subdividing it into a number



1. Camel Team loaded with Wool crossing Thomson River at Longreach (C.Q.).
2. Wool Team leaving Mount Abundance Station, Roma (S.W.Q.).
3. Scoured Wool from Belmont (Brisbane) Wool-scour.
4. Bullock Team drawing load of Wool to a Western Railway Station.

of paddocks, and also by ring-barking if it is heavily timbered. The value of each ewe is increased every year by each lamb that it drops, each lamb being worth, at least, 10s. If the ewe is eventually sold for further breeding purposes it is worth from 25s. to 35s., or, if fattened up for market, from 5½d. to 6d. per lb., plus the value of the skins. Then again, if the progeny are sold in the fat stock markets as wethers, hoggets, or lambs, they fetch the same price per lb. as ewes. Elsewhere in this book, under the heading of "Sheep Markets," full particulars are given of the values of sheep.



Dipping Sheep at Jondaryan Station, S.Q.

Knowing that sheep-raising is a decidedly profitable occupation, the intending settler with £5,000 to invest will not experience any difficulty in getting sufficient financial assistance from any of the large stock and station firms, wool-broking firms, or financial institutions in Queensland, provided the security in regard to the lease of his holding is good. The intending settler will find it necessary to seek the assistance of such firms or institutions in order to stock up his holding. With anything like a reasonable amount of luck he will be able to liquidate his liabilities in a few years, and extend his operations.

A well-known and a very successful grazier in the Maranoa District (South-western Queensland) considers that a comfort-

able living can be made on a grazing farm of 10,000 acres; but to attain this object the holding must be properly subdivided into paddocks, and the country must be ringbarked. When this is done country similar to his own will, under normal meteorological conditions, carry one sheep to three acres without any difficulty.

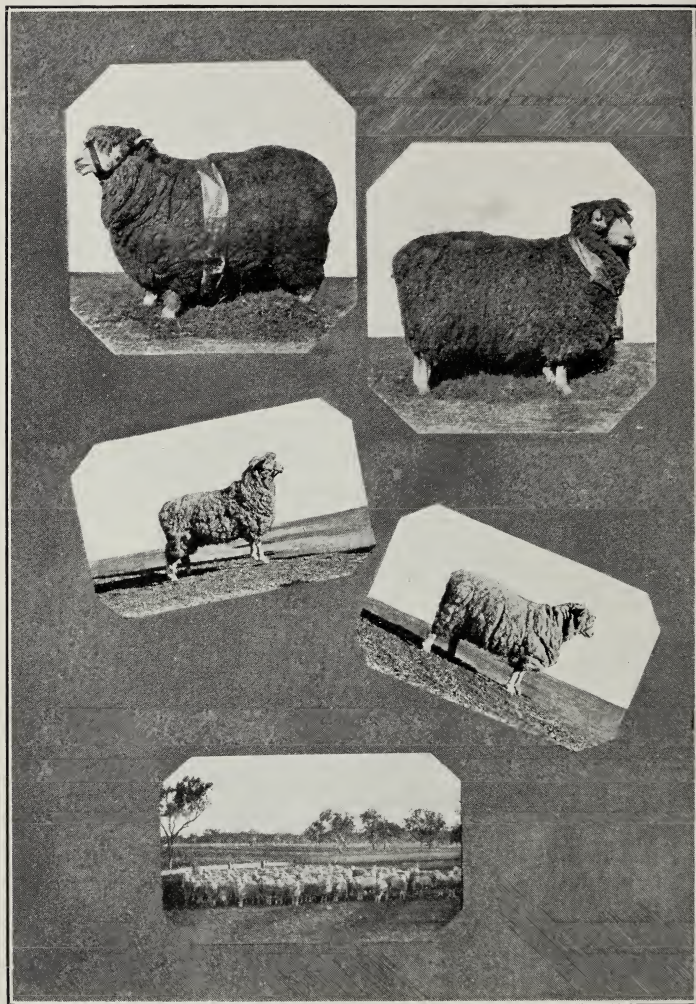
MIXED FARMING.

By this is meant the combining of sheep-raising with that of general farming pursuits. The areas most favoured for the carrying on of such operations are the Darling Downs and those



Merino Rams on a Station in the Longreach District, C.Q.

within close proximity to the coastal districts of the State. As has already been stated in the introductory pages of this book, there are illimitable possibilities in this direction. Quite a number of agriculturists have given the idea a trial, and have succeeded beyond their most sanguine anticipations. The success which has attended the initial efforts of these pioneers in this class of mixed farming has encouraged others to adopt a similar course. Whereas a few years ago there were only a small number of agriculturists, who engaged in sheep-breeding as well as general farming, to-day their numbers have been considerably increased. In point of fact, it is not an uncommon



CHAMPION LINCOLN SHEEP.

1. *Ram.* 2. *Ewe.* 3 and 4. *J. C. Mayall's Ram and Ewe.*
5. *Stud Lincolns on Talgai Station, near Clifton (Darling Downs, S.Q.).*

thing to find scores of successful general farmers and dairymen with small flocks of sheep. The breeds most favoured by these mixed farmers are crossbreds and British breeds. The former comprise, chiefly, the Merino strain, which are crossed with Lincolns, Romney Marsh, English Leicester, Border Leicesters, Shropshires, Southdowns, or Suffolks. In several instances, Corriedales (a New Zealand breed), Dorset Horns, and Roscommons have also been introduced. Of the British breeds, the Romney Marsh, Border Leicester, English Leicester, Lincoln,



Merino Sheep on Gindie State Farm, Emerald District (C.Q.).

and Shropshire are more generally used for crossing with Merino ewes. The aim of the mixed farmer is to breed a dual purpose sheep suitable for the production of wool and mutton, but, primarily, mutton. The Merino strain are more adaptable for the dry areas of the State, whilst the British breeds and crossbreds do well on areas where the rainfall is more excessive than is the case in the West. A number of the mixed farmers on the Darling Downs and in the coastal areas have small studs of pedigreed British breeds, and from time to time sales of stud rams are effected to other agriculturists, who contemplate engaging in the breeding of sheep on a small scale. The success which has attended the efforts of the mixed farmers on the Darling Downs and along the coastal areas has been due to the

fact that the sheep have been raised on artificial grasses. It is by this means that wethers, ewes, and lambs are fattened up quickly for market.

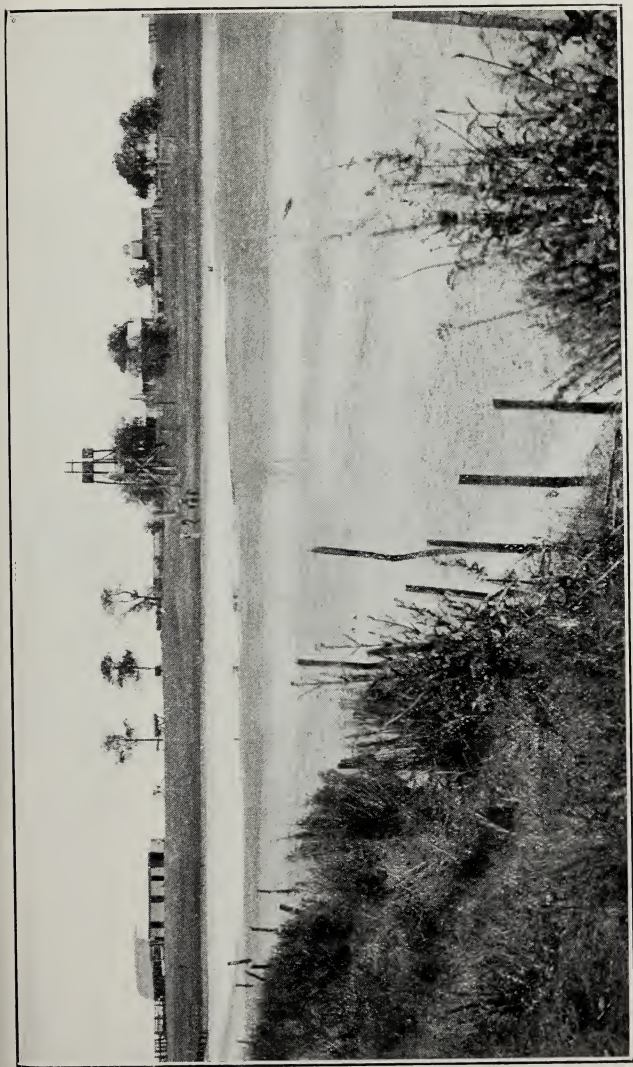
The breeding of sheep is systematically carried on at the Government Agricultural College at Gatton (Moreton district, South Queensland) and at the State Farm at Hermitage, near Warwick (Darling Downs district, South Queensland). At the former place the British breeds crossed with Merino ewes are:—Border Leicester, Romney Marsh, Lincoln, Dorset Horn, and English Leicester; while at the Hermitage State Farm Border



Romney Marsh Stud Ewes on Boobera, Goondiwindi District, S.Q.

Leicester rams are crossed with Merino ewes. The results at both these places have been very satisfactory, and it is because of this success that a great many of the agriculturists have been induced to give sheep-raising some attention.

According to the State Government Statistician's return for 1916, the following are the largest breeders of crossbred and British sheep within the coastal areas under review:—Messrs. M. M. McKellar, Casuarina and Hummock Hill Islands (Rockhampton district, Central Queensland), 7,220 sheep; W. Vaughan, Quail and Long Islands (Rockhampton district, Central Queensland), 2,900; B. W. Palmes, Townshend Island, Yeppoon (Rockhampton district, Central Queensland), 2,800; C. Busuttin, L., St. Bee's, and Repulse Islands (Mackay district, North Queensland),



View of Mitchell Downs Homestead and Tank, Mitchell (South-Western Queensland).

2,090; H. C. Sterry, South Molle Island (Proserpine district, North Queensland), 2,000; A. Adderton, Lindeman Island (Proserpine district, North Queensland), 1,500; R. Cuthbertson, Facing Island (Gladstone district, Central Queensland), 1,200; E. F. Watson, Landsborough (Maroochy district, North Coast Line), 950; G. H. Cary, Binjour, near Gayndah (Burnett district, South Queensland), 760; R. L. Boyd, Byrnestown (Burnett district, South Queensland), 630; Scott Bros., Woodford district (South



Farmers' Fat Sheep for Market, Clifton, S.Q.

Queensland), 619; R. Dreier, Kin Kin (Wide Bay district, South Queensland), 500; A. A. C. Francis, Kin Kin (Wide Bay district, South Queensland), 435; M. Ritchie, Byrnestown (Burnett district, South Queensland), 368; V. C. Marks, Cooroy (Wide Bay district, South Queensland), 367; Poulsen Family, Cooran (Wide Bay district, South Queensland), 349; C. H. Grove, Coolabunia, near Kingaroy (Burnett district, South Queensland), 330; C. F. Coar, Orpheus Island, Halifax (North Queensland), 328; C. Hargest, Cid Island (Proserpine district, North Queensland), 300. There are fully fifty other farmers with flocks ranging from 100 upwards along the coastal areas.

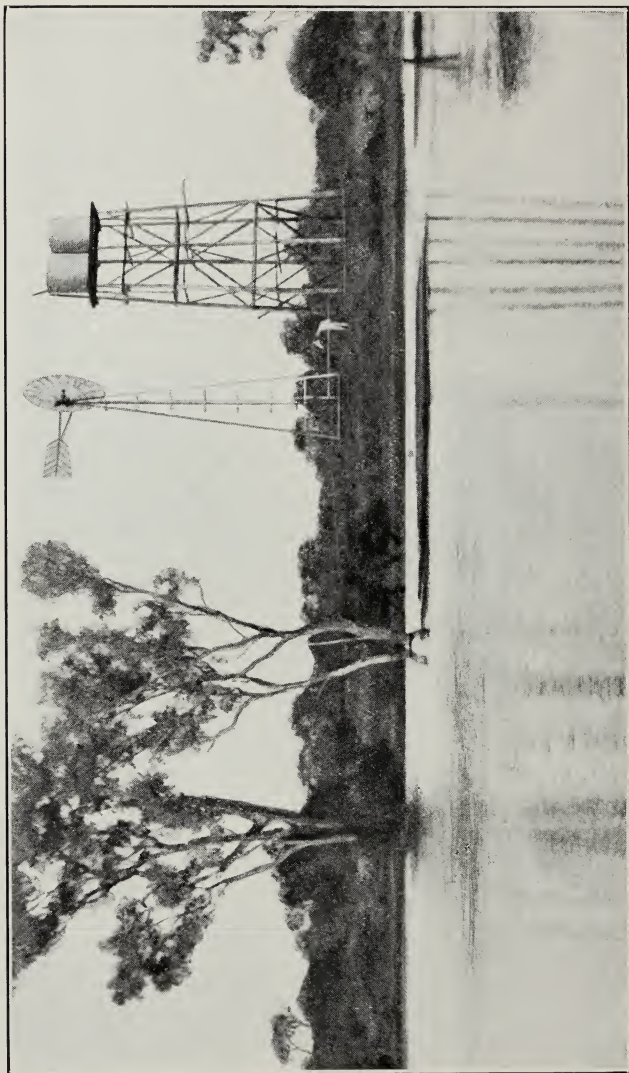
On the Darling Downs (South Queensland) there are several hundred mixed farmers, whose sheep number from ten to a thousand or more. The sheep-breeding qualities of the Darling Downs are so well known that it is superfluous to dwell upon

the fact. The coastal areas are not so well known in this respect, hence the reason for singling this portion of Queensland out for special mention.

The majority of the farms in the districts referred to range from 640 acres to 2,560 acres. In the Western districts of the State a number of the agriculturists are devoting some attention to sheep-raising on a small scale. Needless to say, the greatest measure of success is attained on these agricultural blocks where fodder is raised for the sustenance of the sheep. On many of these Western farms crops of wheat, maize, millets, &c., are grown as feed for the sheep. In several instances the cultivation of these crops is accomplished by means of irrigation, the water for this purpose being obtained from permanent streams or artesian and sub-artesian bores. As an evidence of the carrying capacity of country cropped with artificial grasses, Mr. Jas. Cork, of Maleny (North Coast Line) has 160 head of sheep on 16 acres of paspalum country. It is contended by an expert that farms in the coastal districts cultivated with paspalum or Rhodes grass will feed six sheep to the acre under normal conditions.

STATE HANDLING OF MIXED FARMERS' WOOL.

The State Department of Agriculture and Stock, in order to encourage agriculturists to include sheep-raising in their operations, receives wool in small consignments from farmers who keep not more than 1,500 sheep. As soon as the wool is received it is classified, weighed, and pressed. The wool is "pooled"—that is to say, all wool of a particular quality is put into a class by itself, irrespective of ownership. After being thus graded the wool is sent to the market in the name of the Department, and is sold there by auction or appraised in the usual way. If required, farmers are advanced 60 per cent. of the value of the wool as soon as it is weighed, and they receive the remainder after the sale has been effected. At the inception of the system, the grading of the wool was done by the students at the Brisbane Central Technical College. Arrangements have now been completed for the handling of the clips in the newly-established wool rooms of the Department of Agriculture and Stock in William street. The departmental charges in connection with the handling of the wool are:—For classification, 10s. per bale; and all freight, handling, dumping, rebaling, and other out-of-pocket expenses. No commission whatever is charged. It is



Excavated Tank and Windmill on Mitchell Downs, Mitchell (South-Western Queensland).

claimed that Queensland was the first country in the world to inaugurate this system of handling the wool grown by small farmers.

AVAILABLE SHEEP COUNTRY.

There are large tracts of country in the Western areas of the State admirably adapted for the successful raising of sheep. The policy of the Government is to resume, from time to time, portions of large runs held on leasehold tenure. These areas are then cut up into blocks of about 5,000 to 20,000 acres each as grazing farms.

Grazing selections may be secured on lease as a grazing homestead or grazing farm for a period of up to twenty-eight years. The average annual rent is about 2d. per acre. No grazing farm can exceed 60,000 acres in area. The limitation



Rams on Thornleigh Station, Blackall District, C.Q.

of area is determined by the rent value, an annual rental of £200 being the limitation. Thus, of lands open at 2d. per acre, the greatest area obtainable would be 24,000 acres; at 1½d. per acre, 32,000 acres; and so on. The term of lease may be any number of years not exceeding twenty-eight, as the opening notification may declare. The annual rent for the first period of seven years is fixed by departmental notification, or by tender. The rent for each subsequent period will be determined by the Land Court. During the whole of the term of a grazing homestead the condition of personal residence applies, and prior to the expiration of the first five years a grazing homestead is not capable of being mortgaged without the permission of the

Minister (except to the Commissioner of the Government Savings Bank), or assigned or transferred, except in the case of the death, insanity, or incapacity by reason of serious illness, accident, infirmity, or misfortune of the selector. The Land Court may also grant to the original selector of a Grazing Homestead (or in the case of his death or insanity, the person representing him) exemption from the performance of the condition of personal residence for one year after the condition has been performed for the first five years, and thereafter for one year for each further five years in which personal residence is performed. Grazing farms must be continuously occupied by the selector or manager or agent, and within three years they must be securely fenced. In some cases, no rental is charged for the first period of occupation if the grazing farm is more or less infested with prickly-pear or noxious weeds. As soon as a grazing farm is fenced the lease is issued, and the selector is then allowed to mortgage the holding, or, by permission of the Minister, subdivide, transfer, or sublet it.

The following is a list of the pastoral districts in which resumptions have been made from large pastoral leases for the purpose of making them available as grazing selections:—Cook, Burke, North Kennedy (North Queensland); South Kennedy, Leichhardt, Gregory North, Mitchell, Port Curtis (Central Queensland); Burnett, Darling Downs, Maranoa, Gregory South, Warrego (South Queensland).

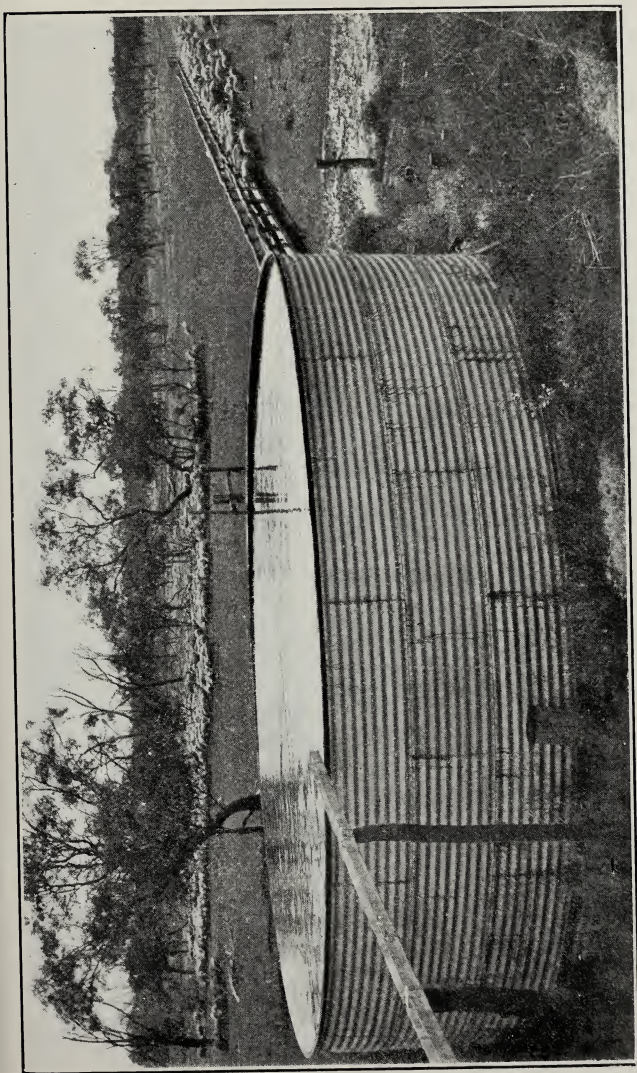
Pastoral leases may be obtained on long leases at a low rental per annum, and with a tenure up to thirty years.

Large areas of country may also be rented from the Crown from year to year under an occupation license, with no limitation as to area.

Note.—For fuller particulars in regard to the different modes of selection in Queensland, see Leaflet A.

LAND FOR MIXED FARMING.

For this branch of industry there is a considerable area of land available in all portions of Queensland, particularly in those portions best adapted for its successful pursuance. The areas where the most land is available at the present time are the Wide Bay and Burnett districts (South Queensland) and the coastal country as far north as the Atherton Tableland. The land is open for selection under perpetual lease conditions.



Tank containing 24,000 gallons of water on Listowel Downs, Blackall District (Central Queensland).

The maximum area of an agricultural block is 2,560 acres, and the capital value ranges from 10s. per acre upwards. The maximum area is, however, only allowed to be taken up in remote districts. The land must be fenced within five years, or other improvements effected equal in value to the cost of the fencing. There must also be five years' personal residence or occupation as the case may require, and, thereafter, the condition of occupation must be performed during the whole term. As soon as the improvements are effected, the lease may be obtained, and this may then be subdivided, transferred, or mortgaged.



Shorn Sheep at Westbourne, near Barcaldine, C.Q.

Prickly-pear selections, aggregating 2,560 acres, are also available under the perpetual lease conditions in different portions of the State. During the first period of occupation a peppercorn rental is charged, and during the second period of fifteen years an annual rental equal to $1\frac{1}{2}$ per cent. of the capital value is charged. If the capital value is less than 5s. per acre, the rent for the second period is peppercorn. The land must be absolutely cleared of pear during the first period as notified in the notification opening the land for selection, and kept clear of the pest during the remainder of the term. The capital value of such land varies according to the state of infestation, from nil upwards.

Perpetual lease selections cannot, while they are subject to the condition of personal residence, be mortgaged (except to the Commissioner of the Government Savings Bank) or transferred, except in the case of the death or insanity or incapacity by reason of serious illness, accident, infirmity, or misfortune of the selector.

STATE ASSISTANCE TO MIXED FARMERS.

The Government issues a second-class railway ticket at half the ordinary fare to the intending settler desirous of inspecting Crown land with a view of selecting an area not exceeding 5,120 acres. If the intending settler subsequently takes up a selection, subject to personal residence conditions, not exceeding 5,120 acres in area, the half-fare paid by him is refunded, and his family, self, ordinary household furniture and effects, agricul-



Devon Long-wool Rams, Mooki Springs, N.S.W.

tural implements, seed, one dray, and one set of harness are carried free to the railway station nearest to his selection. Special reduced rates are granted for the carriage of building material, fencing wire, and two truckloads of live stock.

The Advances to Settlers branch of the Queensland Government Savings Bank makes advances to new settlers, agricul-



ARTESIAN BORES ON SOUTH-WESTERN AND CENTRAL QUEENSLAND STATIONS.

1. *Thuraggie, St. George.*
2. *Grazing Farm, near Barcaldine.*
3. *Tinnenburra, Cumnamulla.*
4. *J. Cronin's Grazing Farm, near Barcaldine.*

turists, &c., on the security of freeholds, licenses, and leases from the Crown (including prickly-pear selections) to make improvements on the land or for paying off liabilities, at 5 per cent. per annum, repayable in twenty-five years or at any earlier time at the option of the borrower. A settler applying for an advance must give a first mortgage on his holding. The bank advances up to £1,200 on the total value of the land and improvements. For the first five years only simple interest is charged at 5 per cent. per annum. After five years the borrower must begin to redeem his advance at the rate of £4 0s. 3d. half-yearly for each £100 borrowed, inclusive of interest, until the whole has been paid. The Government Savings Bank advances 15s. in the £1 of the total value of the land and improvements for the purpose of enabling the selector to purchase stock, machinery, or implements, for putting down a well or bore, or for relieving the liability on the holding. Advances at the rate of 15s. in the £1 on the value of the land and improvements thereon up to £400 can also be obtained for unspecified purposes.

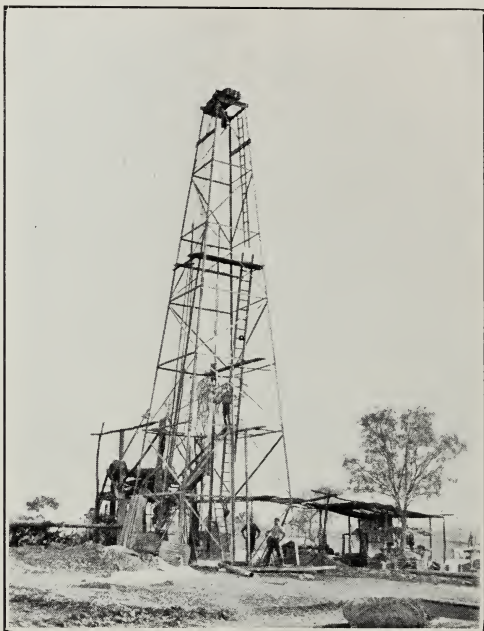
LAND FOR DISCHARGED SOLDIERS.

“The Discharged Soldiers’ Settlement Act of 1917” provides that all soldiers of the Australian Imperial Forces who have taken part in the present war may, on application, select . . . country land on perpetual lease and personal residence conditions in Queensland. The provisions of the above Act may be also extended, by proclamation by the Governor in Council, to the other forces of the British Empire and to those of the Allied Powers.

In regard to perpetual lease selections, no deposit is required to be lodged with an application, and no rental is payable for the first three years; then, from the fourth to fifteenth years (inclusive), the rental will be $1\frac{1}{2}$ per cent. of the declared capital value of the land, and after that period the rental of the land will be subject to the reappraisement clauses of the Land Act. The survey fee will be repayable in ten equal annual instalments without interest, commencing at the fourth year of the term.

Advances at the rate of £1 for £1 up to £500 will be made, subject to the provisions of the Queensland Government Savings Bank Act, in order to enable discharged soldiers to erect dwellings, and effect other improvements on their land, &c. The

terms for the repayment of the advances extend over a period of forty years, with $3\frac{1}{2}$ per cent. interest added for the first year, 4 per cent. interest for the second year, $4\frac{1}{2}$ per cent. interest for the third year, and not exceeding 5 per cent. interest thereafter



Boring Plant on Northampton Downs, Blackall, C.Q.

until the advance has been repaid. During the first seven years simple interest only at the prescribed rate is charged, no repayments towards the liquidation of the amount advanced being demanded until the expiration of the seven years. Advances at the rate of 15s. in the £1, not exceeding £700, can also be obtained for the purpose of purchasing stock, machinery, implements, &c., and also for unspecified purposes. Such advances, however, must be repaid by annual instalments within twenty-five years, with 5 per cent. interest added.

Soldiers engaged in the present war may make application for perpetual lease selections by proxy, and in the case of such



Artesian Bore on Coongoola Station, Cunnamulla District (South-Western Queensland).

accepted applications the Minister for Lands has power to waive all conditions appertaining to personal residence conditions, &c., during the continuance of the war.

Soldiers discharged from the Australian Imperial Forces, or the forces of the British Empire or Allied Powers, for misconduct are debarred from availing themselves of the provisions of the Discharged Soldiers' Settlement Act.

ARTESIAN WATER.

Since the practicability of tapping the vast supplies of artesian water stored beneath the surface of a large area of Queensland has been demonstrated, a tremendous change has taken place in the Western districts of the State.



Merino Stud Ewes at Gindie State Farm, Emerald District, C.Q.

Great tracts of well-grassed country, which have only a limited rainfall, have, by the aid of artesian bores, been brought into use, and stocked with sheep and cattle.

The chief water-storing stratum is the cretaceous formation, which, roughly speaking, stretches westerly from the Great Dividing Range, dividing the river systems of the east coast from those which discharge their waters northward in the Gulf of Carpentaria and southward in the Great Australian Bight.

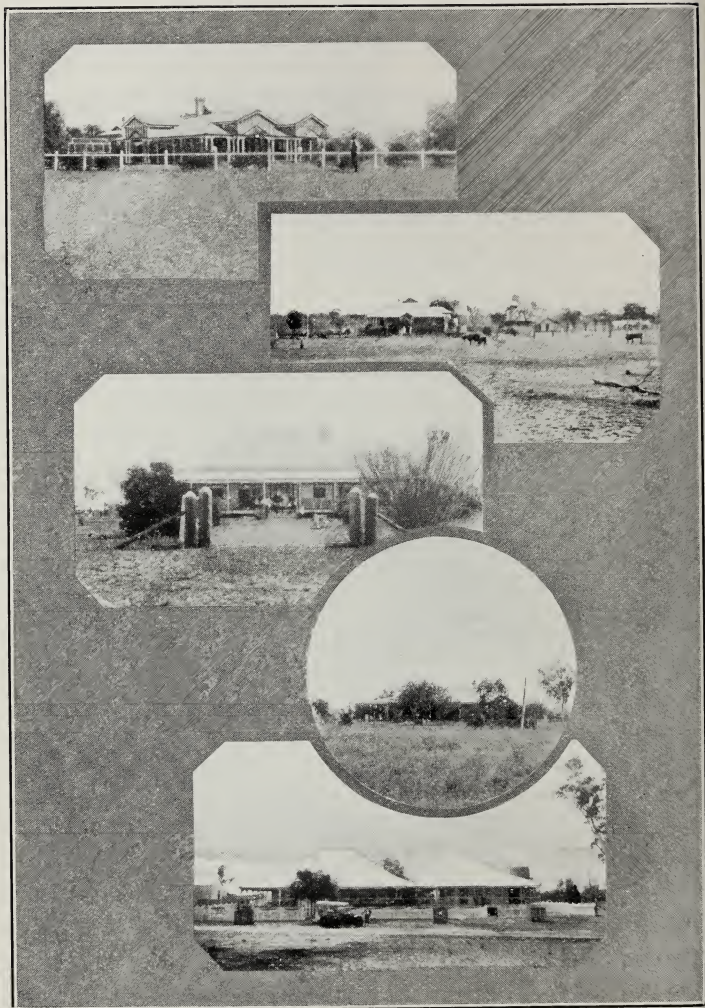
At the end of June, 1917, there were 3,061 artesian bores in Queensland. The average depth of the bores was 1,061 feet. The deepest bore, which is at Springleigh, in the Blackall district (Central Queensland), has a depth of 5,700 feet; while the shallowest is at Manfred Downs, which yields a supply of



Artesian Bore, with casing attached, Central Queensland Station.

2,000 gallons per day, at a depth of 10 feet. The estimated aggregate daily flow from 1,146 flowing bores in the State is 430,341,990 gallons. To obtain this supply the total depth bored was 2,976,475 feet, or 563.72 miles; and the estimated total cost has been £3,725,000.

The analyses of the water show varying results. While some bores yield copious supplies of water good alike for irrigation and domestic use, others may give water useful for irrigation only, or not suitable for either irrigation or domestic use.



HOMESTEADS IN SOUTH-WESTERN AND CENTRAL QUEENSLAND.

1. *Norindoo, Surat.*
2. *Bonus Downs, Mitchell.*
3. *Weribone, Surat.*
4. *Portland Downs, Isisford (Central Queensland).*
5. *Woodlands, Maranoa River.*

Besides being used for the wants of sheep and cattle on the large Western stations, several of our Western towns are reticulated with bore water, which is used for all domestic purposes.

The cost of putting down an artesian bore is calculated on the basis of 30s. (including all expenses) per foot on from 1,500 feet to 2,000 feet, the average depth of artesian bores in the sheep country of the State. The following are the charges for boring only:—For the first 1,000 feet, 16s.; 1,000 feet to 1,500 feet, 17s.; 1,500 feet to 2,000 feet, 18s.; 2,000 feet to 2,500



Shearing Time on a South-Western Station.

feet, 19s.; 2,500 feet to 3,000 feet, 20s. The foregoing prices depend to a great extent upon the facilities available in the district in which the bores are about to be put down—such as transport, and wood and water. Where a farm is watered by natural streams no bore would be necessary. Even where there is no natural supply of water a farm might be supplied from a bore on an adjacent property. In this latter case an annual charge would be made by the owner of the bore, such charge usually being about £50.

According to the evidence of one of the members of a large artesian well-boring firm given before the Land Appeal Court in Brisbane a few years ago, the ruling price for boring at that

period was as follows:—For the first 1,000 feet, 19s. per foot; for the second 1,000 feet, 21s.; and for the third 1,000 feet, 26s.

Under “The Rights in Water and Water Conservation and Utilisation Acts of 1910-1915,” grazing farmers, pastoralists, and agriculturists are afforded assistance by the Government in putting down artesian and sub-artesian bores, or obtaining



Sheep at Kahmoo Woolshed, Cunnamulla (S.W.Q.) ready for shearing.

permanent water on their holdings. Hereunder is an example of what can be done under the Act in question by two or more selectors:—

	£	s.	d.
Cost of putting down a bore on a grazing area of 60,000 acres, the whole of which would be benefited, say	2,000	0	0
20 miles of drains at £15 per mile	300	0	0
Total cost of work	£2,300	0	0

This cost would be treated as a loan to the grazing farmers,



South Australian Strain of Merinos—Stud Ewes from Canowie Station, South Australia.

pastoralists, or agriculturists for a period not exceeding thirty years, and the annual charges thereon would be:—

	£	s.	d.
Interest and redemption on £2,300 at £5 15s. 8d.			
per cent. per annum	133	0	4
Maintenance and administration of works, say...	200	0	0

Total annual charge £333 0 4

Or equivalent to a rate or charge per acre of 1.33d., or less than 1½d. At the end of the thirty years' period the bore would become the property of the grazing farmers, pastoralists, or agriculturists concerned. The foregoing estimate, it may be stated, was prepared prior to the outbreak of war.

RAINFALL.

The following are the average annual rainfalls at the principal centres in the different divisions of the State of Queensland:—

SOUTHERN DIVISION.

Station.	Average to 1917.	Number of Years' Record.	Station.	Average to 1917.	Number of Years' Record.
<i>Coastal.</i>	<i>In.</i>		<i>Darling Downs—continued:</i>	<i>In.</i>	
Beaudesert	35·52	25	Greenmount	27·47	6
Beenleigh	46·17	31	Inglewood	27·66	35
Biggenden	33·72	19	Jandowae	25·03	19
Boonah	35·31	12	Pittsworth	29·17	31
Brisbane	46·34	66	Stanthorpe	30·93	45
Bundaberg	44·61	35	Toowoomba	37·33	46
Caboolture	49·73	31	Warra	26·50	29
Childers	42·17	23	Warwick	28·24	31
Cooran	54·76	25			
Degilbo	29·07	23	<i>Western.</i>		
Eidsvold	29·58	28	Adavale	16·31	29
Gatton	29·52	23	Augathella	23·19	28
Gayndah	30·77	47	Bollon	18·76	32
Gympie	46·78	48	Charleville	22·94	40
Kilcoy	40·96	27	Cunnamulla	14·65	39
Kilkivan	36·03	39	Dirranbandi	19·32	29
Kingaroy	31·22	12	Eulo	12·22	31
Maryborough	46·20	47	Goondiwindi	25·85	39
Nanango	32·05	36	Hungerford	11·72	28
Woodford	52·83	31	Mitchell	24·52	34
			Morven	22·00	31
<i>Darling Downs.</i>			Muckadilla	23·11	27
Allora	27·72	35	Roma	24·43	44
Cambooya	30·10	31	St. George	21·16	37
Chinchilla	27·21	28	Surat	24·15	37
Clifton	23·41	21	Thargomindah	11·43	39
Dalby	26·37	48	Wallumbilla	23·52	20
Dalveen	34·77	22	Yeulba	26·47	34

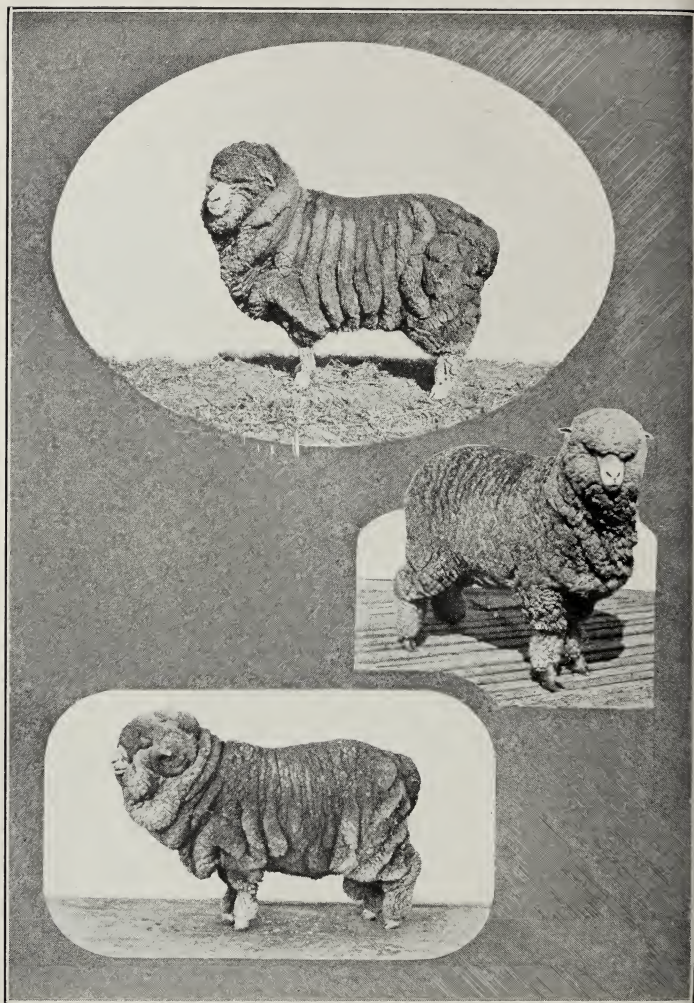
CENTRAL DIVISION.

Station.	Average to 1917.	Number of Years' Record.	Station.	Average to 1917.	Number of Years' Record.
<i>Coastal.</i>	<i>In.</i>		<i>Western.</i>	<i>In.</i>	
Itton Downs	*41-0	..	Alpha	23-04	31
usbley	*31-0	..	Aramac	18-85	38
ororen	*48-21	..	Banana	27-78	47
alliope	*44-0	..	Barcaldine	20-63	31
uaringa	29-08	28	Blackall	21-65	38
mu Park	44-05	31	Blair Athol	*26-0	..
tna	*48-0	..	Bogantungan	28-44	30
ladstone	40-89	46	Boulia	11-54	31
ogango	*30-0	..	Capella	22-71	19
racemere	29-44	17	Camboon	28-00	44
arlborough	37-96	47	Clermont	28-07	47
any Peaks	*47-0	..	Emerald	25-99	35
iriam Vale	46-80	27	Gindie	22-67	19
ount Chalmers	*56-0	..	Ilfracombe	15-93	18
ount Morgan	31-20	22	Isisford	17-91	33
ount Larcom	*44-0	..	Jericho	22-07	17
urray's Creek	*45-0	..	Jundah	15-76	28
ockhampton	40-17	31	Longreach	17-20	25
osedale	44-76	19	Muttaburra	18-18	33
tanwell	30-79	21	Springsure	26-07	49
t. Lawrence	43-23	47	Tambo	21-91	37
arren	*31-54	..	Winton	14-67	34
Vestwood	30-42	43			
oodend	*31-0	..			
owan	*31-0	..			
aamba	33-82	18			
arwun	*44-0	..			
epoon	67-14	27			

* Unofficial.

NORTHERN DIVISION.

Station.	Average to 1917.	Number of Years' Record.	Station.	Average to 1917.	Number of Years' Record.
<i>Coastal.</i>	<i>In.</i>		<i>Western.</i>	<i>In.</i>	
therton	52-76	17	Camooweal	15-93	26
owen	40-09	47	Charters Towers	25-75	36
urketown	27-32	31	Chillagoe	34-53	16
airns	90-91	36	Cloncurry	19-51	34
ardwell	85-58	46	Croydon	28-69	29
oen	47-19	31	Georgetown	33-66	46
ooktown	72-79	42	Herberton	43-59	31
ngham	80-71	26	Hughenden	20-83	33
nnisfail	147-17	37	Mackinlay	17-29	31
ormanton	38-67	46	Ravenswood	28-90	32
lackay	68-11	47	Richmond	18-34	28
lareeba	36-84	22	Tangorin	15-82	23
ort Douglas	81-88	34	Torrens Creek	21-23	24
roserpine	75-38	15	Urundangie	11-69	37
ownsville	49-42	47			



STUD MERINO SHEEP.

1 and 2. *Merino Ram and Ewe.*

3. *Tasmanian Strain of Merino Ram on Retro Station, Capella (Central Queensland).*



Crossbreds at State Agricultural College, Gatton, S.Q.

HISTORY OF THE SHEEP INDUSTRY.

From reliable sources, it is learned that when New South Wales was founded in 1788, there were 29 sheep in the State. All of these, with the exception of one, died. It is not stated who was responsible for their introduction, but probably the sheep were brought out on the first vessel, which visited Sydney. In 1791, H.M.S. "Gorgon" brought out a further 48 sheep from the Cape of Good Hope (South Africa), and, in 1792, Governor Phillip was responsible for the introduction of several English rams and ewes. While at the Cape of Good Hope (South Africa), Captain Waterhouse, of H.M.S. "Reliance," purchased a small number of the late Colonel Gordon's flock of thoroughbred Spanish Merinos for £4 per head. These sheep were of the Escurial or Cabana strain, and are reported to have been presented to the Dutch Government by the King of Spain. Eventually these became the property of the late Colonel Gordon. Captain Waterhouse brought the sheep he had purchased to Sydney in 1797, and disposed of them to Captains Kent, McArthur, Rowley, Cox, and the Rev. Samuel Marsden at £15 per head.

Though Captain John McArthur was not the first to introduce Merino sheep into Australia, there is no question about his being the pioneer breeder, and it was mainly through his instrumentality that the great possibilities of the industry were demonstrated.

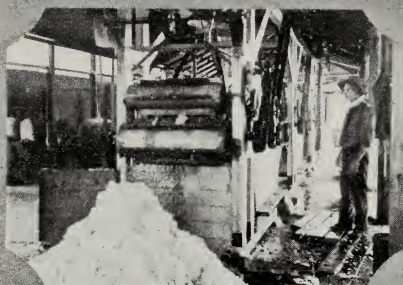
The introduction of Merino sheep into Queensland is reported to have taken place in the early forties. The late Mr. Frederic Bracker, father of Mr. H. Bracker—who is well known in the pastoral life of Queensland—travelled overland

to the Darling Downs in charge of a number of Saxon Merinos from the Brindley Park flock (Upper Hunter River district, New South Wales) for the purpose of establishing a flock for the North British Australasian Investment Company, at Rosenthal, near Warwick. Then the late Mr. John Deuchar secured some of the Rosenthal sheep, and established a flock at Glengallan, near Warwick. Subsequently, this station became the property of Messrs. Marshall and Slade, who further improved the flock by importations from Germany. Mr. Bracker's flock at Rosen-



Stud Merino Sheep on Murweh, Charleville District, S.W.Q.

thal was improved by the introduction of German and Silesian Merinos. Mr. Patrick Leslie, with his brothers (George and Walter), were the first to start sheep-raising on the Darling Downs about 1840, while Messrs. Archer Brothers took up country in the Burnett district for the same purpose. The latter brought with them from New South Wales a number of the famous L.U.E. flock, which comprised Spanish-Saxon blood. The Negretti (Spanish), Rambouillet (French), the Vermont (American) strains were also brought to Queensland. For many years the American blood was very much in request, but, to-day, it is anything but popular. The Vermonts carried an unnecessary amount of yolk, and were unable to stand adverse conditions like the Australian Merino. Moreover, their



1. *Interior of Charleville Wool-scour (S.W.Q.).*
2. *Loading Wool at Longreach Wool-scour (Central Queensland).*
3. *Load of Wool at Cunnamulla Railway Station (S.W.Q.).*
4. *Blackall Wool-scour (Central Queensland).*



Merino Rams on a Western Station.

frames were much smaller, and the breed were more susceptible to fly trouble. Large-framed, plain-bodied sheep, with a sound constitution and deep-grown robust wool, then came into vogue.

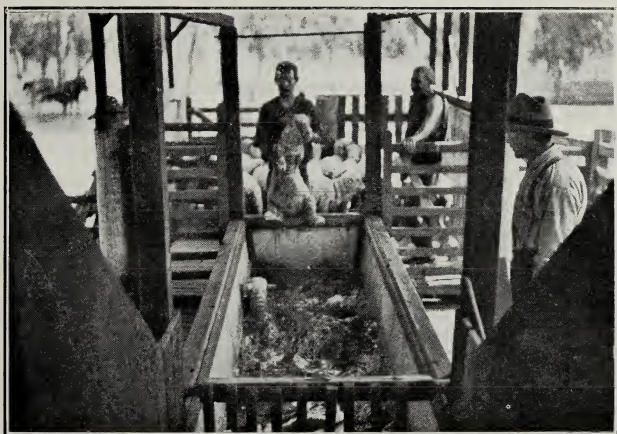
Despite several severe set-backs, the industry made great strides from the outset; so much so, indeed, that, in 1860, the flocks of Queensland numbered 3,449,350.



Pen of Shropshires on the Darling Downs (S.Q.).

In 1871 Mr. Donald Gunn, of Pikedale, near Stanthorpe (Darling Downs, South Queensland), imported pure Negrettis from Germany.

As a result of experiments by pastoralists in the other States of the Commonwealth improved breeds of Merinos were brought about. Among these may be mentioned:—Peppin, Wanganella, Boonoke, Havilah, South Australian, and Tasmanian. All of these strains have been introduced into the Queensland flocks, and their wool-producing qualities have attained a high standard in consequence. As a result of the introduction of



Dipping Sheep at Talgai West, Hendon, Darling Downs, S.Q.

these strains into Queensland, a number of the large pastoralists have succeeded in establishing what is claimed to be a Queensland breed of Merino sheep. Conspicuous among the breeders of the Queensland strain are:—Victoria Downs, Morven (South-western Queensland), Albilbah, Isisford (Central Queensland), Umercolleie, Goondiwindi (Darling Downs, South Queensland), and Welltown, Goondiwindi (Darling Downs, South Queensland). There are a number of other studs in Queensland, where pedigreed rams or flock rams can be purchased. The standard of these studs is maintained by the frequent introduction of new blood from the leading Southern studs.

It is claimed that the late Mr. F. J. C. Wildash, of Canning Downs, near Warwick (Darling Downs, South Queensland) was the first to engage in the cross-breeding of sheep in Queensland. In 1869 he introduced a pure English Leicester ram into a small



STUD MERINO SHEEP.

1. *Canowie (South Australia) Ram.*
2. *Glengallan (Darling Downs, S.Q.) Ewes.*
3. *Collinsville (South Australia) Ewe.*

flock of Merino ewes. Success attended his efforts, and he was encouraged to enlarge his operations in this direction. A few years later the late Mr. George H. Davenport, of Headington Hill, near Clifton (Darling Downs), also secured a number of English Leicester rams for the same purpose. Then the late Sir Joshua Peter Bell, of Jimbour, near Dalby (Darling Downs), imported several English Leicester rams and ewes from England, and introduced them into his flock. Meanwhile favourable reports had come to hand of the success of the experiments in the Southern States of the Commonwealth of the Lincoln-Merino cross. Queensland pastoralists lost no time in utilising the Lincoln for crossing purposes, and in course



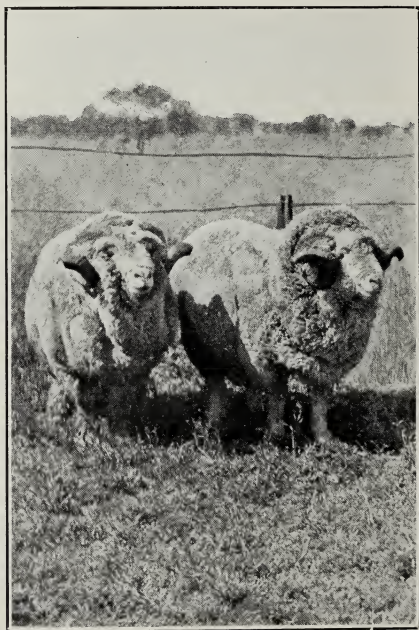
C. H. Ensor's Corriedale Hoggets, Dalby District, S.Q.

of time this cross was generally adopted. In later years Southdown, Shropshire, Cotswold, Romney Marsh, Cheviot, and Border Leicester breeds were also tried for crossing purposes. Though the Lincoln-Merino cross was held in most favour for a number of years, to-day the majority of the other British breeds are also used to a great extent. The Corriedales, a New Zealand breed, are favoured by a number of grazing farmers and pastoralists, who realise the necessity of producing a dual purpose animal. Among the more recent introductions into Queensland are the Dorset Horn and Roscommon sheep. These, however, are, so far, only represented in small numbers.

A study of the statistics, published elsewhere in this book, will demonstrate most abundantly how the industry has progressed since its inception in Queensland. The flocks reached record proportions in 1914, when these numbered 23,129,919. The existence of a severe dry spell in 1915-16, however, reduced their numbers to 15,524,293. Now that bountiful seasons once more prevail, it is only reasonable to expect a considerable improvement in the numbers of the sheep within the next few years.

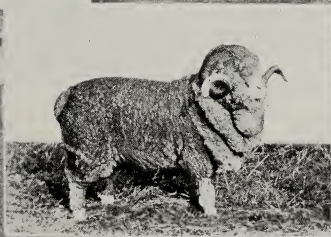
MERINO SHEEP.

It is a generally accepted fact that Merino sheep are, primarily, wool producers of a high order, and only take a secondary place for their mutton. The bulk of the wool exported



*Stud Merino Rams (Wanganella Strain),
Victoria Downs, Morven, S.W.Q.*

from Queensland is of the Merino type. The home of the Merino is the western districts of the State, where the climatic con-



TASMANIAN STRAIN OF STUD MERINO SHEEP.

1. *Winton (Tasmania) Ram.*
- 2, 3, and 4. *Belle Vue (Tasmania) Rams and Ewes.*



TASMANIAN STRAIN OF STUD MERINO SHEEP.

1. *Winton (Tasmania) Ram.*

2 and 3. *Rams on Retro Station, Capella (Central Queensland).*

ditions are generally dry, because of the absence of an excessive rainfall throughout the year. In districts where the rainfall is regular, but limited, the Merino thrives, but the opposite effect is produced in districts remarkable for heavy rainfalls. The dry western conditions, too, have a decided tendency to make the wool finer. As has already been stated, a great amount of cross-breeding is indulged in by grazing farmers and pastoralists for the purpose of raising animals for the lamb and frozen mutton trade. The rams of several of the British breeds of sheep are successfully used in this direction. Fully 97 per cent. of the flocks in Queensland are of the Merino strain.

Among the principal breeders of Merino stud sheep in Queensland are:—Isis Downs, Isisford (Central Queensland), Retro (Tasmanian blood), Capella (Central Queensland), Alice Downs, Blackall (Central Queensland), Magenta, Capella



Merino Stud Ewes (Wanganella Strain), Victoria Downs, Morven, S.W.Q.

(Central Queensland), Willoughby, Barcaldine (Central Queensland), Lindon, Saltern (Central Queensland), Albilbah (Rambouillet blood), Isisford (Central Queensland), Aramac, Aramac (Central Queensland), Minnie Downs, Tambo (Central Queensland), Mount Marlow (Wanganella blood), Isisford (Central Queensland), East Talgai, Ellinthorp (Darling Downs, South Queensland), Loudon (Havilah blood), Dalby (Darling Downs, South Queensland), Welltown, Goondiwindi (Darling Downs,

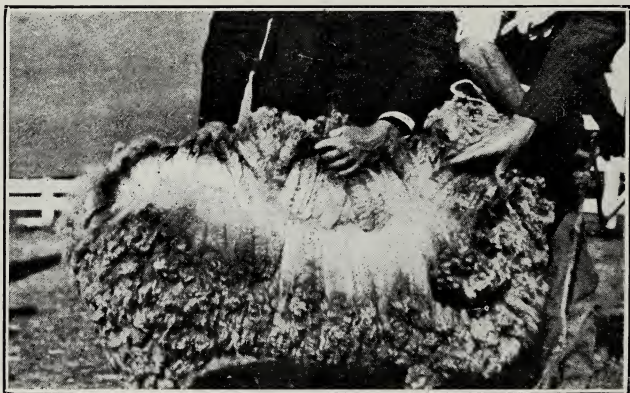
South Queensland), Glengallan, near Warwick (Darling Downs, South Queensland), Umbercollie, Goondiwindi (Darling Downs, South Queensland), Jondaryan, Jondaryan (Darling Downs, South Queensland), Bon Accord, Dalby (Darling Downs, South Queensland), Victoria Downs (Wanganella blood), Morven (Maranoa district, South-western Queensland), South Comongin, Adavale (South-western Queensland). A number of the large station-owners have introduced other notable strains of Merino into their flocks, such as Boonoke, South Australian, Peppin, &c., from the principal stud stations in the Southern States of the Commonwealth.

BRITISH BREEDS.

Appended is a brief description of the characteristics of the British breeds of sheep, which are being bred in Queensland:—

The Lincoln

is a big-bodied, robust animal, and carries a large fleece of long, lustrous wool of massive formation, with a staple from 10 inches to 12 inches in length. Though not an early-maturing



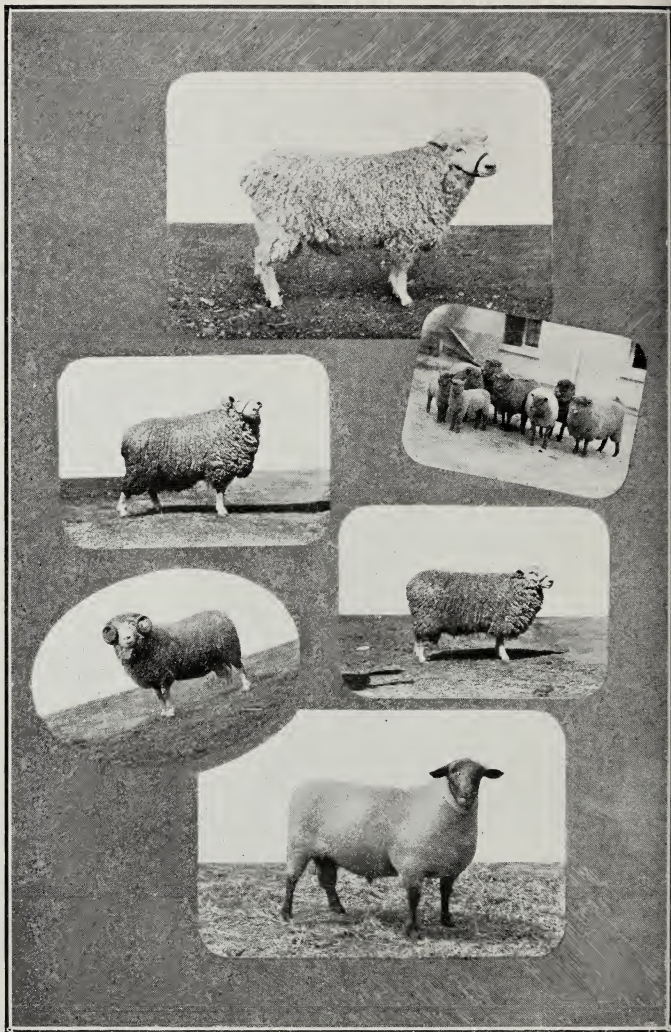
Showing Staple of Wool on J. C. Mayall's Champion Border Leicester Ewe.

animal, the Lincoln maintains its vigour much longer than other breeds. It is recognised as one of the best breeds for wool-growing and mutton. The first cross on the Merino ewe is claimed to be one of the best for wool and mutton.



CHAMPION BORDER LEICESTER SHEEP.

1. *J. C. Mayall's Ram, Avondale, Pittsworth, S.Q.*
2. *G. Hartnell's Ewe, Logie Plains, Warra, S.Q.*
- 3 and 4. *J. C. Mayall's Ewes, Avondale, Pittsworth, S.Q.*



BRITISH BREEDS OF STUD SHEEP.

1. A. C. Thompson's English Leicester Ram, Fairfield Stud Farm, Kaimkillenbun (Darling Downs, S.Q.).
- 2 and 5. L. E. Laurie Rhoades' Romney Marsh Ewe and Ram, Cedar Park, Pittsworth (Darling Downs, S.Q.)
3. Group of Numeralla Southdown Sheep, Victoria.
4. Dorset Horn Ram on Tabragalba, Beaudesert District, S.Q.
6. J. H. Thonemann's Suffolk Ram, Kuyarra, Macalister, S.Q.

Jondaryan Station, Jondaryan, Messrs. M. F. and R. C. Ramsay, Talgai, Clifton, F. J. Highett, Fairmount, Bell, A. J. Duke, Tantivy, near Toowoomba, are the principal breeders of stud sheep. All of the foregoing holdings are on the Darling Downs (South Queensland).

English Leicester.

This breed, because of its hardy disposition, cannot be excelled for wool and mutton. The English Leicester matures early, and is prolific. It carries a good fleece of long, lustrous wool, which is finer than that of the Lincoln, but lacks its body and staple. For crossing with other breeds, the English Leicester stands out prominently; in fact, there is scarcely a breed which has not felt its influence.

Mr. A. C. Thompson, of Fairfield Stud Farm, Kaimkillenbun (Darling Downs, South Queensland), has one of the principal studs of English Leicester sheep in the State.



Stud Merino Ewes at Talgai West, Hendon, S.Q.

Border Leicester.

The Border Leicester is a combination of the English Leicester and the Cheviot. As a result of the cross the Border Leicester possesses all the good qualities of the English Leicester and the hardiness of the Cheviot. It is prolific, early-maturing, has a fair fleece, and a good carcass. As a wool and mutton animal, it stands in the forefront. The Border Leicester is frugal in its habits, requires very little water, and thrives upon comparatively poor pastures.

Messrs. J. C. Mayall, Avondale, Pittsworth, W. Williamson, O.K., Dalby, W. Moffatt, Spring Meadows, Dalby, G. Hartnell, Logie Plains, Warra, and W. Hartnell, Thorndale, Warra, have studs. All of these grazing farms are on the Darling Downs (South Queensland). There is also a stud at the State Agricultural College at Gatton (South Queensland).

Romney Marsh.

This sheep is large-framed, has a splendid constitution, and is not so prone as other breeds to attacks of disease. It is specially adapted to humid, swampy, or badly drained country, and is one of the most useful of the British breeds for dual purposes. Its wool is a demi-lustre of medium quality.



J. Cook's Romney Marsh Sheep, Laidley, S.Q.

The breeders of stud sheep include:—Messrs. L. E. Laurie Rhoades, Cedar Park, Pittsworth, A. C. V. Bligh, Condamine Plains, Brookstead, E. Corfe, Bostocks, Brookstead, and H. M. Ross, Boobera, Goondiwindi. All of the foregoing grazing farms are on the Darling Downs (South Queensland). There is also a small stud at the State Agricultural College, Gatton (South Queensland).

The Shropshire

is essentially a mutton sheep. It is prolific, early-maturing, and is in great favour with the butchers for the export trade. For lamb-raising, it is one of the best, as the lambs mature very early. The wool is rather short in fibre, spongy, and somewhat open.

Messrs. Tyson Doneley, Ltd., Yarrandine, near Talwood (Maranoa district, South-western Queensland), have a large number of rams.



CHAMPION SHROPSHIRE AND CORRIEDALE SHEEP.

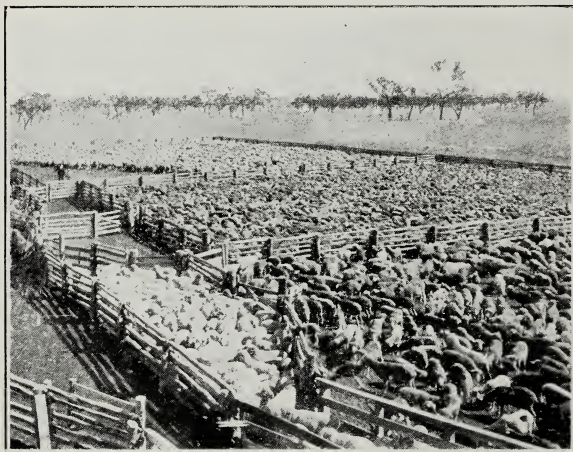
1. *Shropshire Ewe.*
2. *Shropshire Ram.*
3. *Shropshire Lamb.*
4. *J. H. Fairfax's Corriedale Ram, Marinya, Cambooya, S.Q.*
5. *C. H. Ensor's Corriedale Ram, Dalby District, S.Q.*

The Southdown

is recognised as the aristocrat of the sheep world, because of its having a purer lineage than any of the other improved breeds. It is a well-shaped animal, and is a good mutton producer. Like other breeds, it is prolific, matures fairly early, and makes a splendid cross. The fleece is light, but of fine texture. There is a small stud of Southdown sheep on Woolooga Station, in the Wide Bay district (South Queensland).

The Suffolk

is another of the breeds of sheep admirably adapted for producing mutton of excellent quality, and remarkable for its large proportion of lean meat. The Suffolk is prolific, matures



10,000 Sheep ready for Shearing on a Charleville (S.W.Q.) Station.

very early, and makes one of the best crosses. The fleece is light, and of medium quality. Mr. J. H. Thonemann, of Kuyura, Macalister (South Queensland) has a stud of Suffolks.

Dorset Horn.

The Dorset Horn sheep are the most prolific of the British breeds, and mature early. The ewes are excellent mothers, and lamb early. This breed is unsurpassed for lamb-raising,

and their flesh as mutton and lamb is of good quality. They produce a fair fleece of wool of the medium to fine type. Some time ago a small number of stud sheep was introduced on to Tabragalba Station, in the Beaudesert district (South Coast Line). Mr. H. Robinson, near Toowoomba, has also a few, and the State Agricultural College at Gatton (South Queensland) has had a small number for some years past. Several other grazing farmers have, from time to time, introduced the Dorset Horn breed into their flocks.

Roscommon.

Though there are only a few breeders in Queensland of this well known Irish breed of sheep, it is claimed that it is a first-class dual purpose animal. A small number of them



Mob of Fat Sheep at Redbank Meatworks, Brisbane-Ipswich Line (S.Q.).

have been introduced into the flocks on Boombah Station, near St. George (South-western Queensland). Experiments are also being carried on with a few on Tabragalba Station, in the Beaudesert district (South Coast Line).



1. Motor lorry loaded with Strathmore Station wool at Longreach (C.Q.).
2. Load of 13 tons of wool in the Longreach District (C.Q.).
3. Wool being loaded on trucks at Charleville Railway Station (S.W.Q.).
4. Motor tractors loaded with wool at Longreach Railway Station (C.Q.).

NEW ZEALAND BREED—CORRIEDALE.

This breed of dual-purpose sheep is coming into much favour with grazing farmers and mixed farmers in Queensland. It was founded in New Zealand many years ago, and is regarded as one of the best wool and mutton producers in the sheep world. It is a large-bodied animal, and carries a good fleece. The Corriedale has all the best strains of the English Leicester, Lincoln, and Merino in its composition. The rams are in much request for crossing purposes. The ewes are good mothers, and very prolific. Corriedales mature quickly, and produce mutton or lamb of first quality.

The following have Corriedale stud sheep in Queensland:—Messrs. J. H. Fairfax, Marinya, Cambooya (Darling Downs, South Queensland), C. H. Ensor, Dunmore Park, Dalby (Darling Downs, South Queensland), S. Townend, Zilzie, Warra (Darling Downs, South Queensland), and G. D. Greenwood, Tocal, Arrilalah (Central Queensland).

THE FLOCKS OF QUEENSLAND.

The following statistical tables, compiled from the records of the State Government Statistician, will give readers some



Merino Sheep on Mt. Abundance, Roma, S.W.Q.

idea of the great importance of the Sheep and Wool Industry in Queensland:—

DISTRIBUTION IN PASTORAL DISTRICTS.

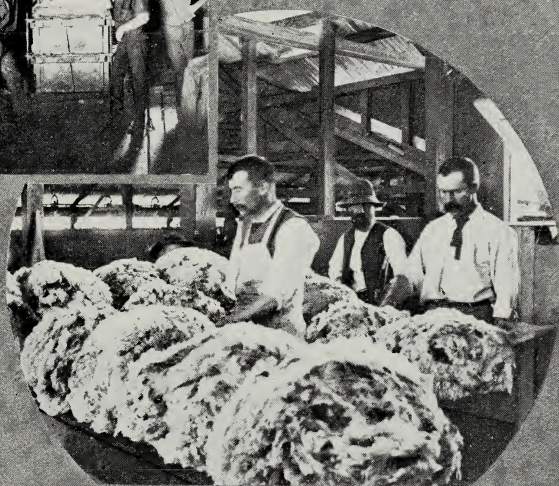
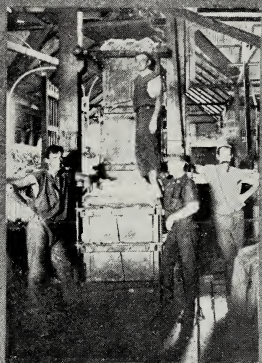
District.	Area in Acres.	Number of Sheep.	Number of Owners.
Burke	65,383,040	2,016,516	192
Burnett	7,972,480	10,641	133
Cook	63,601,920	310	12
Darling Downs	16,249,600	1,436,245	1,157
Gregory North	54,266,240	1,845,851	130
Gregory South	31,617,920	244,368	17
Leichhardt	30,946,560	538,106	316
Maranoa	25,110,400	1,423,702	526
Mitchell	35,431,680	6,034,597	524
Moreton	5,649,920	18,372	331
North Kennedy	21,832,960	8,873	42
Port Curtis	8,994,560	21,271	89
South Kennedy	19,528,960	192,698	66
Warrego	37,333,760	1,727,627	327
Wide Bay	5,200,000	5,116	124

In 1916, there were 4,903,504 sheep in Southern Queensland, 8,419,050 in Central Queensland, and 2,201,739 in North Queensland.

The map appearing elsewhere in this book gives fuller details in regard to the distribution of sheep in Queensland.

SIZES OF FLOCKS OF SHEEP IN 1916.

1,179 persons owned	21,409 sheep.	Flock	50 and under.
848	180,929 .. .. .	.. .. .	51 to 500
401	301,962 .. .. .	.. .. .	501 to 1,000
400	604,779 .. .. .	.. .. .	1,001 to 2,000
488	1,652,135 .. .. .	.. .. .	2,001 to 5,000
301	2,131,248 .. .. .	.. .. .	5,001 to 10,000
183	2,631,461 .. .. .	.. .. .	10,001 to 20,000
134	3,985,965 .. .. .	.. .. .	20,001 to 50,000
43	2,942,167 .. .. .	.. .. .	50,001 to 100,000
9	1,072,238 .. .. .	.. .. .	101,000 and upwards
3,986	15,524,293 .. .. .	.. .. .	



1. *Pressing and Baling Wool, Nive Downs Woolshed, Augathella (S.W.Q.).*
2. *Wool-classing at a Western Woolshed.*
3. *Skirting and Rolling Wool at Jondaryan Woolshed (Darling Downs, S.Q.).*

SIZES OF FLOCKS, ETC., FOR TEN YEARS.

Year.	Number of Owners.	Number of Sheep.	Average Size of Flocks.	Proportional Increase or Decrease.	Acres per Head.
1907	2,748	16,738,047	6,091	12.44	26
1908	2,834	18,348,851	6,475	9.62	23
1909	2,888	19,593,791	6,785	6.78	22
1910	3,082	20,331,838	6,597	3.77	21
1911	3,119	20,740,981	6,650	2.01	21
1912	3,224	20,310,036	6,300	*2.08	21
1913	3,365	21,786,600	6,474	7.27	20
1914	3,719	23,129,919	6,219	6.17	19
1915	4,091	15,950,154	3,899	*31.04	27
1916	3,986	15,524,293	3,895	*2.67	28

* Decrease.

In 1916, 6,817,835 ewes dropped 3,021,730 lambs, or a percentage of 44.32. The adverse climatic conditions which pre-



Stud Merino Sheep on Murweh, Charleville District, S.W.Q.

vailed during this year are responsible for the unusually low percentage of lambing. In normal seasons it averages about 80 per cent. Instances are on record where 100 per cent., and even considerably over, has been attained.

WOOL PRODUCTION OF QUEENSLAND.

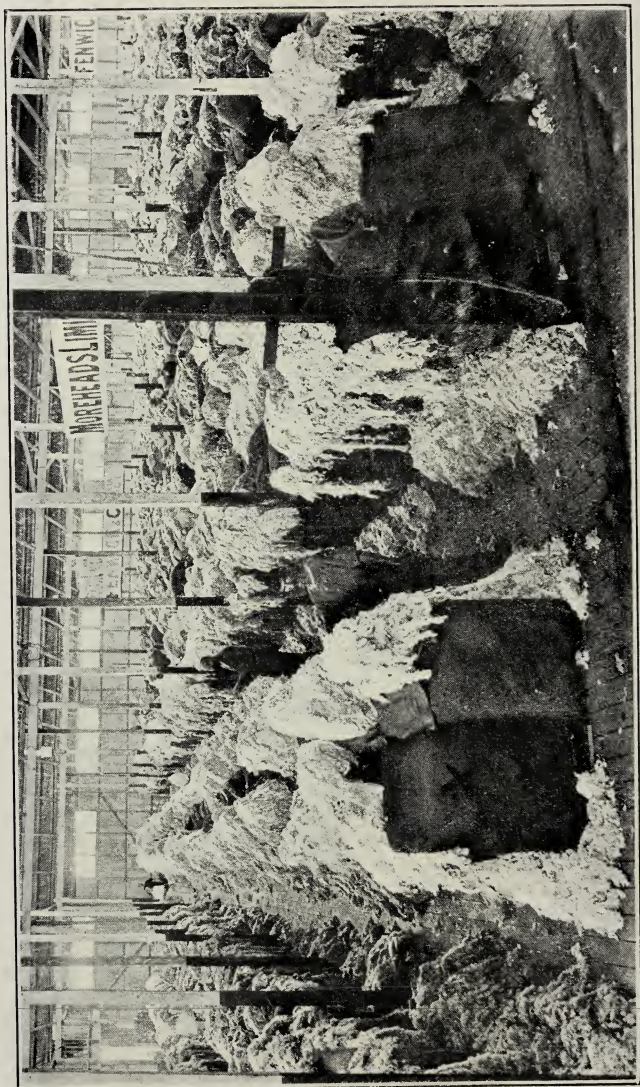
The total wool production of Queensland for 1916 was 102,220,125 lb., valued at £4,898,000. For the year 1916-17 the production totalled 275,141 bales, and was valued at £6,363,155.



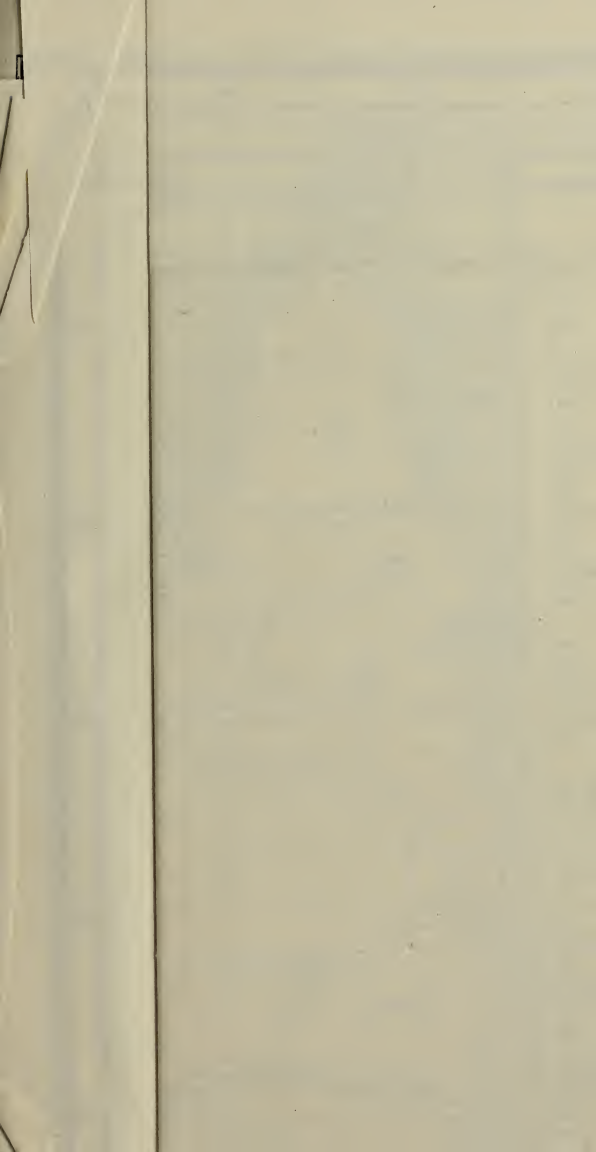
Yarded for Shearing on a South-Western Station.

The greatest production for any calendar year was in 1914, when it was 155,478,740 lb., valued at £6,707,000. In 1916, 3,798,462 sheep, out of the State's aggregate of 15,524,293, were shorn.

The greater portion of the wool production in Queensland comes from the Central Division, the pastoral district of Mitchell (comprising Longreach, Barcaldine, Blackall, Isisford, Aramac, &c.) being the largest individual contributor in 1916, with 8,620,940 lb. The heaviest average fleeces were produced in 1916 in the following pastoral districts:—Gregory North (Central Queensland), 7.54 lb.; Darling Downs (South Queensland), 7.37 lb.; Mitchell (Central Queensland), 7.32 lb.; Gregory South (South-western Queensland), 6.92 lb.; North Kennedy (North Queensland), 6.90 lb.; Warrego (South-western Queensland), 6.89 lb. The average weight of the fleece per sheep for the whole State was 7 lb. One of the Lincoln rams on Mr. A. J. Luke's farm at Tantivy, near Toowoomba (Darling Downs), carrying eleven months' wool, last year yielded a fleece of 26 lb. In 1916 the same animal yielded a fleece of 25 lb.



Wool Exposed for Inspection by Intending Buyers in the Annexes at the Show Grounds, Brisbane (South Queensland).



Return showing the Number of Cattle and Sheep in the various Petty Sessions Districts of the State on 1st January, 1917.

Petty Sessions District	Cattle	Sheep
Adelaide	1,100	250
Albion	1,200	300
Alford	1,300	350
Alton	1,400	400
Altona	1,500	450
Altona East	1,600	500
Altona West	1,700	550
Altona North	1,800	600
Altona South	1,900	650
Altona Central	2,000	700
Altona East	2,100	750
Altona West	2,200	800
Altona North	2,300	850
Altona South	2,400	900
Altona Central	2,500	950
Altona East	2,600	1,000
Altona West	2,700	1,050
Altona North	2,800	1,100
Altona South	2,900	1,150
Altona Central	3,000	1,200
Altona East	3,100	1,250
Altona West	3,200	1,300
Altona North	3,300	1,350
Altona South	3,400	1,400
Altona Central	3,500	1,450
Altona East	3,600	1,500
Altona West	3,700	1,550
Altona North	3,800	1,600
Altona South	3,900	1,650
Altona Central	4,000	1,700
Altona East	4,100	1,750
Altona West	4,200	1,800
Altona North	4,300	1,850
Altona South	4,400	1,900
Altona Central	4,500	1,950
Altona East	4,600	2,000
Altona West	4,700	2,050
Altona North	4,800	2,100
Altona South	4,900	2,150
Altona Central	5,000	2,200
Altona East	5,100	2,250
Altona West	5,200	2,300
Altona North	5,300	2,350
Altona South	5,400	2,400
Altona Central	5,500	2,450
Altona East	5,600	2,500
Altona West	5,700	2,550
Altona North	5,800	2,600
Altona South	5,900	2,650
Altona Central	6,000	2,700
Altona East	6,100	2,750
Altona West	6,200	2,800
Altona North	6,300	2,850
Altona South	6,400	2,900
Altona Central	6,500	2,950
Altona East	6,600	3,000
Altona West	6,700	3,050
Altona North	6,800	3,100
Altona South	6,900	3,150
Altona Central	7,000	3,200
Altona East	7,100	3,250
Altona West	7,200	3,300
Altona North	7,300	3,350
Altona South	7,400	3,400
Altona Central	7,500	3,450
Altona East	7,600	3,500
Altona West	7,700	3,550
Altona North	7,800	3,600
Altona South	7,900	3,650
Altona Central	8,000	3,700
Altona East	8,100	3,750
Altona West	8,200	3,800
Altona North	8,300	3,850
Altona South	8,400	3,900
Altona Central	8,500	3,950
Altona East	8,600	4,000
Altona West	8,700	4,050
Altona North	8,800	4,100
Altona South	8,900	4,150
Altona Central	9,000	4,200
Altona East	9,100	4,250
Altona West	9,200	4,300
Altona North	9,300	4,350
Altona South	9,400	4,400
Altona Central	9,500	4,450
Altona East	9,600	4,500
Altona West	9,700	4,550
Altona North	9,800	4,600
Altona South	9,900	4,650
Altona Central	10,000	4,700
Altona East	10,100	4,750
Altona West	10,200	4,800
Altona North	10,300	4,850
Altona South	10,400	4,900
Altona Central	10,500	4,950
Altona East	10,600	5,000
Altona West	10,700	5,050
Altona North	10,800	5,100
Altona South	10,900	5,150
Altona Central	11,000	5,200
Altona East	11,100	5,250
Altona West	11,200	5,300
Altona North	11,300	5,350
Altona South	11,400	5,400
Altona Central	11,500	5,450
Altona East	11,600	5,500
Altona West	11,700	5,550
Altona North	11,800	5,600
Altona South	11,900	5,650
Altona Central	12,000	5,700
Altona East	12,100	5,750
Altona West	12,200	5,800
Altona North	12,300	5,850
Altona South	12,400	5,900
Altona Central	12,500	5,950
Altona East	12,600	6,000
Altona West	12,700	6,050
Altona North	12,800	6,100
Altona South	12,900	6,150
Altona Central	13,000	6,200
Altona East	13,100	6,250
Altona West	13,200	6,300
Altona North	13,300	6,350
Altona South	13,400	6,400
Altona Central	13,500	6,450
Altona East	13,600	6,500
Altona West	13,700	6,550
Altona North	13,800	6,600
Altona South	13,900	6,650
Altona Central	14,000	6,700
Altona East	14,100	6,750
Altona West	14,200	6,800
Altona North	14,300	6,850
Altona South	14,400	6,900
Altona Central	14,500	6,950
Altona East	14,600	7,000
Altona West	14,700	7,050
Altona North	14,800	7,100
Altona South	14,900	7,150
Altona Central	15,000	7,200
Altona East	15,100	7,250
Altona West	15,200	7,300
Altona North	15,300	7,350
Altona South	15,400	7,400
Altona Central	15,500	7,450
Altona East	15,600	7,500
Altona West	15,700	7,550
Altona North	15,800	7,600
Altona South	15,900	7,650
Altona Central	16,000	7,700
Altona East	16,100	7,750
Altona West	16,200	7,800
Altona North	16,300	7,850
Altona South	16,400	7,900
Altona Central	16,500	7,950
Altona East	16,600	8,000
Altona West	16,700	8,050
Altona North	16,800	8,100
Altona South	16,900	8,150
Altona Central	17,000	8,200
Altona East	17,100	8,250
Altona West	17,200	8,300
Altona North	17,300	8,350
Altona South	17,400	8,400
Altona Central	17,500	8,450
Altona East	17,600	8,500
Altona West	17,700	8,550
Altona North	17,800	8,600
Altona South	17,900	8,650
Altona Central	18,000	8,700
Altona East	18,100	8,750
Altona West	18,200	8,800
Altona North	18,300	8,850
Altona South	18,400	8,900
Altona Central	18,500	8,950
Altona East	18,600	9,000
Altona West	18,700	9,050
Altona North	18,800	9,100
Altona South	18,900	9,150
Altona Central	19,000	9,200
Altona East	19,100	9,250
Altona West	19,200	9,300
Altona North	19,300	9,350
Altona South	19,400	9,400
Altona Central	19,500	9,450
Altona East	19,600	9,500
Altona West	19,700	9,550
Altona North	19,800	9,600
Altona South	19,900	9,650
Altona Central	20,000	9,700
Altona East	20,100	9,750
Altona West	20,200	9,800
Altona North	20,300	9,850
Altona South	20,400	9,900
Altona Central	20,500	9,950
Altona East	20,600	10,000
Altona West	20,700	10,050
Altona North	20,800	10,100
Altona South	20,900	10,150
Altona Central	21,000	10,200
Altona East	21,100	10,250
Altona West	21,200	10,300
Altona North	21,300	10,350
Altona South	21,400	10,400
Altona Central	21,500	10,450
Altona East	21,600	10,500
Altona West	21,700	10,550
Altona North	21,800	10,600
Altona South	21,900	10,650
Altona Central	22,000	10,700
Altona East	22,100	10,750
Altona West	22,200	10,800
Altona North	22,300	10,850
Altona South	22,400	10,900
Altona Central	22,500	10,950
Altona East	22,600	11,000
Altona West	22,700	11,050
Altona North	22,800	11,100
Altona South	22,900	11,150
Altona Central	23,000	11,200
Altona East	23,100	11,250
Altona West	23,200	11,300
Altona North	23,300	11,350
Altona South	23,400	11,400
Altona Central	23,500	11,450
Altona East	23,600	11,500
Altona West	23,700	11,550
Altona North	23,800	11,600
Altona South	23,900	11,650
Altona Central	24,000	11,700
Altona East	24,100	11,750
Altona West	24,200	11,800
Altona North	24,300	11,850
Altona South	24,400	11,900
Altona Central	24,500	11,950
Altona East	24,600	12,000
Altona West	24,700	12,050
Altona North	24,800	12,100
Altona South	24,900	12,150
Altona Central	25,000	12,200
Altona East	25,100	12,250
Altona West	25,200	12,300
Altona North	25,300	12,350
Altona South	25,400	12,400
Altona Central	25,500	12,450
Altona East	25,600	12,500
Altona West	25,700	12,550
Altona North	25,800	12,600
Altona South	25,900	12,650
Altona Central	26,000	12,700
Altona East	26,100	12,750
Altona West	26,200	12,800
Altona North	26,300	12,850
Altona South	26,400	12,900
Altona Central	26,500	12,950
Altona East	26,600	13,000
Altona West	26,700	13,050
Altona North	26,800	13,100
Altona South	26,900	13,150
Altona Central	27,000	13,200
Altona East	27,100	13,250
Altona West	27,200	13,300
Altona North	27,300	13,350
Altona South	27,400	13,400
Altona Central	27,500	13,450
Altona East	27,600	13,500
Altona West	27,700	13,550
Altona North	27,800	13,600
Altona South	27,900	13,650
Altona Central	28,000	13,700
Altona East	28,100	13,750
Altona West	28,200	13,800
Altona North	28,300	13,850
Altona South	28,400	13,900
Altona Central	28,500	13,950
Altona East	28,600	14,000
Altona West	28,700	14,050
Altona North	28,800	14,100
Altona South	28,900	14,150
Altona Central	29,000	14,200
Altona East	29,100	14,250
Altona West	29,200	14,300
Altona North	29,300	14,350
Altona South	29,400	14,400
Altona Central	29,500	14,450
Altona East	29,600	14,500
Altona West	29,700	14,550
Altona North	29,800	14,600
Altona South	29,900	14,650
Altona Central	30,000	14,700
Altona East	30,100	14,750
Altona West	30,200	14,800
Altona North	30,300	14,850
Altona South	30,400	14,900
Altona Central	30,500	14,950
Altona East	30,600	15,000
Altona West	30,700	15,050
Altona North	30,800	15,100
Altona South	30,900	15,150
Altona Central	31,000	15,200
Altona East	31,100	15,250
Altona West	31,200	15,300
Altona North	31,300	15,350
Altona South	31,400	15,400
Altona Central	31,500	15,450
Altona East	31,600	15,500
Altona West	31,700	15,550
Altona North	31,800	15,600
Altona South	31,900	15,650
Altona Central	32,000	15,700
Altona East	32,100	15,750
Altona West	32,200	15,800
Altona North	32,300	15,850
Altona South	32,400	15,900
Altona Central	32,500	15,950
Altona East	32,600	16,000
Altona West	32,700	16,050
Altona North	32,800	16,100
Altona South	32,900	16,150
Altona Central	33,000	16,200
Altona East	33,100	16,250
Altona West	33,200	16,300
Altona North	33,300	16,350
Altona South	33,400	16,400
Altona Central	33,500	16,450
Altona East	33,600	16,500
Altona West	33,700	16,550
Altona North	33,800	16,600
Altona South	33,900	16,650
Altona Central	34,000	16,700
Altona East	34,100	16,750
Altona West	34,200	16,800
Altona North	34,300	16,850
Altona South	34,400	16,900
Altona Central	34,500	16,950
Altona East	34,600	17,000
Altona West	34,700	17,050
Altona North	34,800	17,100
Altona South	34,900	17,150
Altona Central	35,000	17,200
Altona East	35,100	17,250
Altona West	35,200	17,300
Altona North	35,300	17,350
Altona South	35,400	17,400
Altona Central	35,500	17,450
Altona East	35,600	17,500
Altona West	35,700	17,550
Altona North	35,800	17,600
Altona South	35,900	17,650
Altona Central	36,000	

Of the sheep shorn in 1916, 59½ per cent. were ewes, 27.60 per cent. wethers, 6.84 per cent. weaners and hoggets, 4.57 per cent. lambs, and 1.49 per cent. rams.

The total value of the machinery used on the stations and grazing farms in 1916 was £650,140.

Out of a total production of 102,220,125 lb. in 1916, only 16,613,257 lb., or 69,806 bales, were scoured. The average weight of a bale of greasy wool for the whole State was 365 lb., and



Sheep Ready for Shearing, Portland Downs, Isisford, C.Q.

of scoured wool 238 lb. The average value of a bale of greasy wool in 1915-16 was £16 10s. 10d., and in 1916-17 it was £20 11s. 8d. Prior to the outbreak of war a bale of greasy wool was valued at over £12. Fully 97 per cent. of the State's wool production is obtained from Merino sheep, and only 3 per cent. from crossbreds and British breeds. Of the total production, 196,268 bales (71 per cent.) were greasy wool, and 78,873 bales (29 per cent.) were scoured. There were 263,520 bales (96 per cent.) of fleeces, &c., and 11,621 bales (4 per cent.) of lambs' wool.

TEN YEARS' PRODUCTION OF WOOL AND VALUES.

1907.	1908.	1909.	1910.	1911.
99,461,711 lb.	110,545,577 lb.	129,668,298 lb.	139,250,802 lb.	142,382,269 lb.
£4,153,000.	£4,193,000.	£5,453,000.	£5,908,000.	£5,580,000.
1912.	1913.	1914.	1915.	1916.
136,878,270 lb.	154,183,114 lb.	155,478,740 lb.	130,783,277 lb.	102,220,125 lb.
£5,561,000.	£6,296,000.	£6,707,000.	£5,122,000.	£4,898,000.

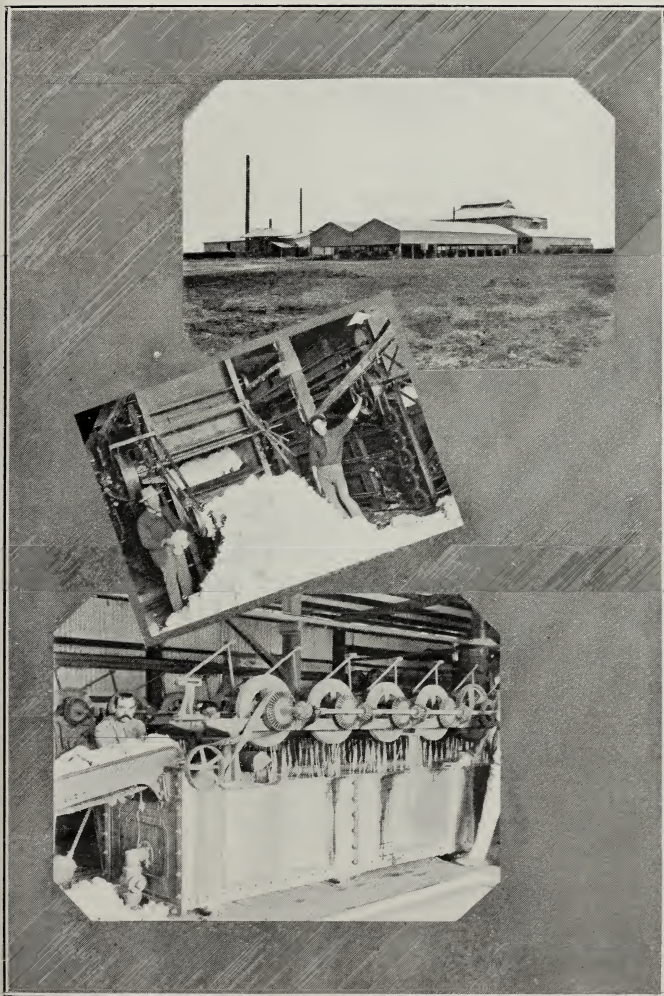
BRISBANE WOOL SALES.

On October, 1898, the first of a series of wool sales was inaugurated in Brisbane. During the first year 11,015 bales of wool were offered for sale. Gradually the volume of business at these sales increased annually until they assumed big proportions. Prior to 1898 the bulk of the wool from Queensland was sent to Sydney for sale, and large consignments were also



Wool Teams at Longreach Railway Station, C.Q.

forwarded to the London market. In 1915-16, the Brisbane Wool-selling Brokers' Association disposed of 246,376 bales of wool in its Wool Exchange in Parbury House, Eagle street, Brisbane. On an average about eight sales were held annually. The wool submitted for sale was exhibited by the wool-broking firms in their wool stores in different parts of the city. Usually the sales were attended by buyers representing firms in all portions of the world, and, as a result, competition was keen. The average export price realised for the season's clip prior to the war was about 10½d. per lb. for greasy, and 19d. per lb. for scoured. The top price realised for greasy wool in 1915-16 was 21¾d. per lb., and for scoured 44¼d. per lb. Previous to this season the best price obtained for a Merino fleece (in the grease) was 16½d. per lb., and for a scoured Merino fleece 28d. per lb. These prices were realised during 1913-14.



Exterior and Interior Views of Westbourne Wool-scour, near Barcaldine (Central Queensland).

In 1915-16, 22,889 bales were sold in Sydney, and a large quantity was also sent direct to London for sale.

Towards the close of 1916 the Imperial Government decided to purchase the whole of the unsold portion of the Australian clip for 1916-17, at an average price of 15½d. per lb. on the basis of the wool in its greasy state. This proposal came into force on 23rd November, 1916, the Commonwealth Government undertaking to act for the British Government in the carrying out of all details. A Central Wool Committee was constituted for the Commonwealth to supervise all matters appertaining to the



Load of Wool in Main Street, Aramac, C.Q.

purchase of the wool, with an advisory board of wool experts to assist where technical knowledge was required. Committees were also appointed for the different States for the purpose of arranging all details in connection with the appraisement of the wool, subject to the approval of the central body. The constitution of these committees was agreed upon as under:—Two pastoralists, three wool-selling brokers, one buyer, one manufacturer, and one scourer. The clip is classed by the advisory board of wool experts into over three hundred standards in order to arrive at the true appraisement and maintain the average price of 15½d. per lb. To safeguard the scheme against failure and to bring the million odd bales out at the average price per lb., 10 per cent. of the proceeds of the appraisements is withheld from the owners. This fund is used as an

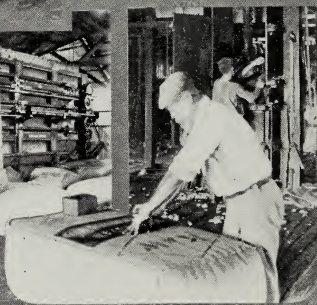
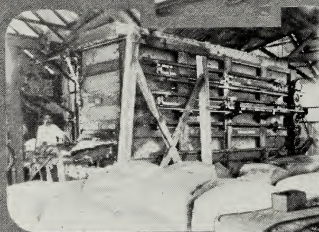
insurance against the possibility of the prices appraised for the clip not averaging 15½d. per lb. At the close of the wool season the final distribution of the proceeds from the appraisements are made, together with the 10 per cent. retained and any surplus which may have been obtained by the British Govern-



Rams on Jondaryan Station, Jondaryan, S.Q.

ment for the clip in excess of the average price of 15½d. per lb. These wool appraisements were inaugurated early in 1917, and a series of them were held at regular intervals during the year. Almost from the outset, record prices were obtained for the best grades of greasy and scoured wools. For the 1916-17 clip the best price for greasy wool (27d. per lb.) was secured by Ballandean and Pike's Creek, both of which are in the Stanthorpe district (Darling Downs, South Queensland). Scoured wool from Leslew Downs, in the Richmond district (North Queensland), brought the record price obtained in the Commonwealth for the season—46½d. per lb. The quantity of wool disposed of during the season referred to totalled 275,141 bales, valued at £6,363,155.

The record prices received to date (1918) for wool in Queensland are:—Greasy, 28d. per lb.; scoured, 48d. per lb. Glenelg Station, in the Inglewood district (Darling Downs, South Queensland), secured the top price for greasy wool, and



1. Interior of Edkins, Marsh, and Co's Wool-scour, Longreach (C.Q.).
2. Dumping Wool at Dalgety and Co's Stores, Bulimba, Brisbane.
3. Wool-drying Machinery at Armstrong and Carter's Wool-scour, Charleville (S.W.Q.).
4. Branding Bales of Wool.

Eulolo and Rosevale Stations, in the Cloncurry district (North Queensland), both obtained the highest prices for scoured.

The highest average price obtained at any of the appraisements for the Queensland clip in 1917 was as under:—Greasy, 15.47d. per lb.; scoured, 28.54d. per lb.

WOOL-SCOURING OPERATIONS.

During 1916 the quantity of wool scoured at the different wool-scouring establishments in the State totalled 69,806 bales, or 16,613,257 lb., out of a total production of 102,220,125 lb.



Wool Teams at Longreach Railway Station, C.Q.

There are, altogether, eighteen wool-scouring establishments, which give employment to several hundred hands during the season, while their output for the year under review aggregated £1,999,673. A number of these establishments in the Western districts also undertake, by contract, the shearing of sheep for grazing farmers. The location of the principal wool-scouring establishments is as under:—Brisbane district—Belmont, Stafford-on-Kedron, Kelvin Grove, Downfall Creek, Chermside, Eight-mile Plains; Toowoomba district, South Queensland, (3); Charleville and Cunnamulla (South-western Queensland); Central Queensland—Rockhampton, Blackall, Ilfracombe, Barcaldine, Westbourne, Longreach, Winton, Lana (Winton district); North Queensland—Ballinalloch (Hughenden district),

Talmoi (Maxwelton district), Carrar (Richmond district). Many of the large stations have also wool-scouring establishments.



*Two Loads of Green Sheepskins arriving at Belmont
Wool-scour, Brisbane.*

In connection with the operations of the wool-scouring establishments, there are great possibilities for the commercial utilisation of the fatty extract from the greasy wool. Such extract can be used, among other things, for the manufacture of emollients.

EXPORT OF WOOL.

In 1915-16, 52,620,768 lb. of greasy wool, valued at £2,511,222, and 16,268,471 lb. of scoured wool, valued at £1,410,708, were exported oversea. Out of the total production for Queensland only 241,600 lb. were used by local manufacturers. There are only two woollen mills in Queensland, and both of these are in Ipswich (South Queensland). At these mills blankets, tweeds, serges, worsteds, flannels, &c., of excellent quality are manufactured. In point of fact, it is claimed that the khaki produced by the Ipswich mills is the best of its kind in the Commonwealth. Though the Republics of South America are strong



DALGETY AND COMPANY'S WOOL STORES, BULIMBA, BRISBANE.

1. *Exterior.*
2. *Bales of Wool to be Dumped.*
3. *"Shooting" Wool on to Vessel for Export.*
4. *Shipping Wool for Export.*



Wool Team Crossing Thomson River, Longreach, C.Q.

competitors, Queensland wool commands top prices in the London market. The principal buyers of Queensland wool are:—Great Britain, United States of America, Europe, and Japan.

EXPORTS OF WOOL AND VALUES FOR NINE AND A-HALF YEARS.

Exports of Wool.	QUANTITY.			VALUE.		
	Interstate.	Oversea.	Total.	Interstate.	Oversea.	Total.
<i>Greasy.</i>	Lb.	Lb.	Lb.	£	£	[£
1907 ..	26,874,174	34,094,787	60,968,961	1,094,716	1,423,434	2,518,150
1908 ..	28,161,288	38,795,587	66,956,875	993,531	1,470,638	2,464,169
1909 ..	28,033,874	48,668,515	76,702,389	1,005,429	2,047,295	3,052,724
1910 ..	*	64,591,609	*	*	2,740,149	*
1911 ..	*	78,529,887	*	*	3,081,062	*
1912 ..	*	74,239,496	*	*	3,012,654	*
1913 ..	*	90,229,443	*	*	3,681,663	*
1914† ..	*	30,358,018	*	*	1,334,615	*
1914-15 ..	*	78,206,793	*	*	3,058,035	*
1915-16 ..	*	52,620,768	*	*	2,511,222	*
<i>Scoured.</i>						
1907 ..	8,953,367	11,660,288	20,613,655	722,987	891,993	1,614,980
1908 ..	7,859,486	15,669,193	23,528,679	566,009	1,109,580	1,675,589
1909 ..	8,885,474	15,288,131	24,173,605	619,453	1,139,120	1,758,573
1910 ..	*	18,906,725	*	*	1,438,275	*
1911 ..	*	20,524,607	*	*	1,438,071	*
1912 ..	*	16,581,495	*	*	1,262,866	*
1913 ..	*	20,064,779	*	*	1,552,256	*
1914† ..	*	5,251,469	*	*	414,307	*
1914-15 ..	*	17,589,369	*	*	1,335,150	*
1915-16 ..	*	16,268,471	*	*	1,410,708	*

* Not available.

† First six months only.

Incidentally, it may be mentioned that many millions of lbs. of greasy and scoured wool are shipped to the other States of the Commonwealth every year, and from thence exported



Sheep on a South-Western Station.

oversea. No official record of these interstate transactions have been kept by the Commonwealth authorities since 1910; consequently, Queensland does not get the fullest measure of credit for her oversea exports in this direction.

According to Dalgety's Annual Review, the oversea exports for the past five wool seasons were as follows:—

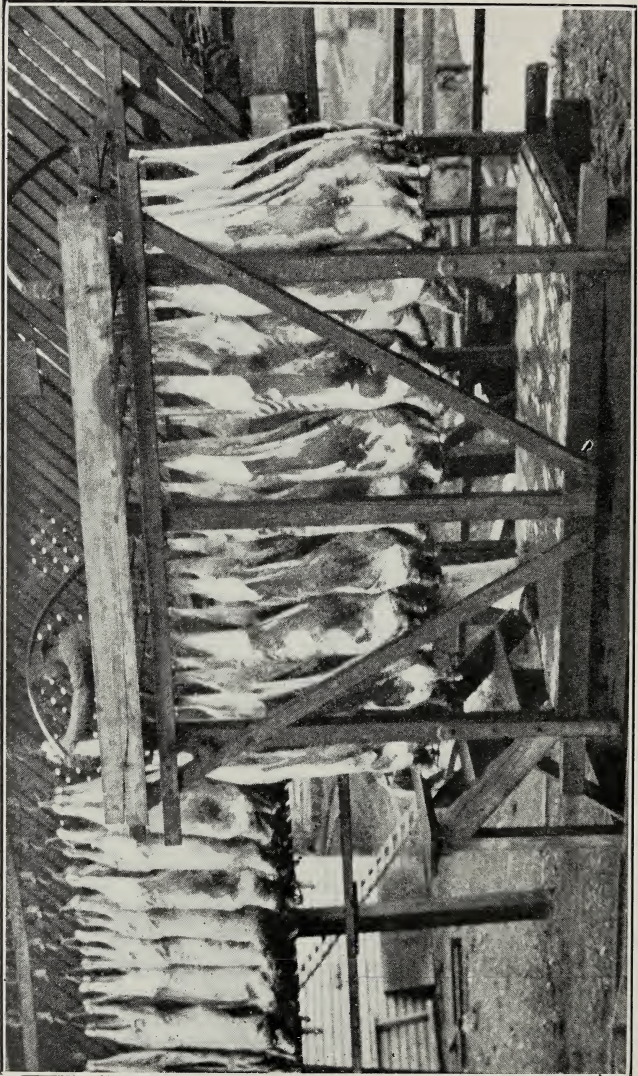
1912-13.	1913-14.	1914-15.	1915-16.	1916-17.
81,743,794 lb.	127,414,133 lb.	89,283,960 lb.	69,903,781 lb.	70,980,714 lb.

The following are the average export prices of wool for the past ten years, as published by the State Government Statistician:—

	1907.	1908.	1909.	1910.	1911.
Greasy	10½d. per lb.	8½d. per lb.	9½d. per lb.	10½d. per lb.	9½d. per lb.
Scoured	18½d. „	17d.	17½d.	18½d. „	16½d. „
	1912.	1913.	1914.	1915.	1916.
Greasy	9¾d. per lb.	9½d. per lb.	10½d. per lb.	9½d. per lb.	11½d. per lb.
Scoured	18½d.	18½d.	19d.	18½d.	20¾d.



Sheep Watering at a Trough on a Central Queensland Station.



Mutton Ready for Freezing at the Central Queensland Meat Export Company's Meatworks, Lake's Creek, Rockhampton (Central Queensland).

With a view of encouraging the exports of wool tops, the Commonwealth Government decided to pay a bonus of 1½d. per lb. from 1909 to 1911, and 1d. per lb. from 1912 to 1915. As far as can be learned officially, Queensland did not make any claims for the payment of the bounty; consequently, no wool tops were, apparently, exported. Two manufacturers in New



C. H. Ensor's Stud Corriedale Rams, Dalby District, S.Q.

South Wales, however, received bounty aggregating £70,000 for the two periods referred to. The wool tops were exported to Great Britain, Europe, India, and New Zealand.

Oversea Exports of Home Production.

—		1914-15.	Percentage to Total Exports.	1915-16.	Percentage to Total Exports.
		£		£	
Agricultural	..	889,293	6.85	174,078	2.15
Pastoral	..	11,384,780	87.66	7,208,406	89.19
Mineral	..	575,491	4.43	527,944	6.53
Other	..	138,372	1.06	172,208	2.13
Totals	..	£12,987,936	100.00	£8,082,636	100.00

In 1916, 172,955 sheep arrived overland from the Southern States of the Commonwealth, and 420,791 head were travelled overland to other portions of the Commonwealth.

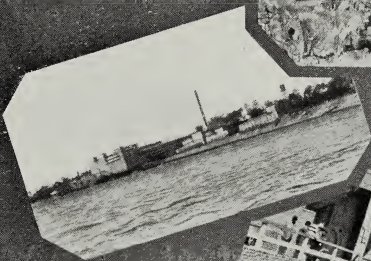
Oversea Exports of Pastoral Products.

—				1914-15.	1915-16.	Decrease.
				£	£	£
Wool	..	..	..	4,393,185	3,921,930	471,255
Live Stock	..	..	..	233,681	101,551	132,130
Meat (all kinds, including Extract)	..	..	..	5,498,674	2,738,258	2,760,416
Tallow	..	..	..	559,459	160,861	398,598
Hides and Skins	..	..	..	610,588	243,581	367,007
All Other	..	..	..	89,193	42,225	46,968
Totals	..	..	..	£11,384,780	£7,208,406	£4,176,374

THE MUTTON TRADE.

One of the most profitable branches of the Sheep and Wool Industry is the mutton trade. In 1916, the number of sheep slaughtered for mutton aggregated 886,617, and 23,498 lambs were also dealt with. Of these 426,901 sheep and 3,363 lambs were slaughtered by the various meatworks of the State. The output of the respective meatworks was valued at, approximately, £2,000,000. Included in the total of 886,617 are 247,141 sheep, which were slaughtered on the holdings of the pastoralists, grazing farmers, and mixed farmers for local consumption. A further deduction from the totals for the State shows that 212,575 sheep and 20,135 lambs were slaughtered by butchers for home consumption. The average dressed weight of the sheep was 43 lb., and of lambs 36 lb. The quantity of mutton consumed per head in Queensland during 1916 was 29.50 lb., and of lamb 1.06 lb. The population of the State at the end of 1916 was 669,467.

The export trade in connection with the industry has assumed great proportions since its inception. To-day, Queensland frozen mutton is in much demand in Great Britain, Europe, and in the East, and, as a natural sequence, commands a good price in these markets. Large quantities of preserved mutton are also exported annually to these countries. The major portion of the output of frozen mutton, preserved mutton, and frozen lamb from the various meatworks is annually exported overseas. Details of the operations of the meatworks are given below. In 1916, 10,032,804 lb. of mutton (272,425 carcasses) were exported overseas, and were valued at £175,320. The quantity of lamb exported overseas totalled 140,373 lb. (4,361 carcasses),



- 1 and 2. *Drying Sheepskins at Redbank Meatworks.*
 3 and 4. *Australian Meat Export Company's Meatworks, Cannon Hill, Brisbane.*
 5. *Sheep on Landing to Slaughter-house, Redbank Meatworks, Brisbane-Ipswich Line.*

valued at £3,311. The total value of the mutton and lamb export was £178,651. In 1915, mutton and lamb to the value of £425,665 and £25,134, respectively, were exported.

There are fifteen meatworks operating in Queensland in connection with the mutton trade. Seven of these meatworks are in the metropolitan area, two in Central Queensland (Gladstone and Rockhampton), and six in North Queensland (Townsville, Charters Towers district, Bowen, and Cairns district). In 1916, 426,901 sheep and 3,363 lambs were slaughtered by the meatworks. These sheep and lambs were utilised as follows:—
 Sheep—395,986 for freezing, 29,875 for preserving, and 540 for



Crossbreds at State Agricultural College, Gatton, S.Q.

boiling down; lambs—3,363 for freezing. The output of the meatworks during the year under review give the appended details:—Frozen mutton, 17,070,957 lb.; preserved mutton, 1,362,126 lb.; frozen lamb, 89,322 lb. The by-products included a considerable quantity of tallow, sheepskins, fertiliser, &c. Though it is not possible to get official figures in regard to the quantity of mutton tallow manufactured, it is reasonable to assume that the output aggregated fully 1,000 tons. It may be mentioned, incidentally, that the total production of tallow (beef and mutton), in 1916, was 8,394 tons, valued at £160,861. Sheepskins, numbering 460,990, and valued at £129,143, were also handled by the meatworks.

The most careful supervision is exercised by the State and Federal Governments in connection with mutton and lamb slaughtered for home consumption and export. No diseased animals are allowed to be killed for human consumption, and the various meatworks and butchering establishments of the State are subjected to the strictest inspection in this respect.



Lamb-Marking at Saltern Creek, near Barcaldine, C.Q.

Close attention is also paid to the sanitary conditions under which animals are dressed for local consumption or export. The retail butchering establishments throughout the State are regularly inspected by veterinary inspectors in order to insure that the meat is wholesome and that the premises are in a cleanly condition.

LAMB-RAISING.

That lamb-raising for export is one of the most lucrative phases of the Sheep and Wool Industry is conclusively exemplified by the success which has been attained in the Southern States of the Commonwealth and in the Dominion of New Zealand. So far as Queensland is concerned, lamb-raising for the export trade is only in its infancy. There is no gainsaying the fact that the Darling Downs (South Queensland) is eminently suitable for the purpose, as has been proved by the success which has attended the efforts of the mixed farmers in this district. The coastal areas, Peak Downs (Central Queensland),



John Cooke and Company's Meatworks, Redbank, Brisbane-Ipswich. Line (South Queensland).

and portions of the Western country are also adaptable in this respect. To attain success in this direction, however, it is absolutely necessary that artificial grasses—such as *paspalum*, *Rhodes*, *lucerne*, &c.—should be cultivated for the raising of the lambs for market. Lambs do not fatten readily on natural grasses. Many mixed farmers, who have made a success of lamb-raising for the export trade, favour feeding lambs during



Merino Rams and Ewes on Mount Abundance, Roma, S.W.Q.

dry spells on ensilage. The stack silo is the cheapest and most popular system advocated for the conservation of fodder. On the occasion of the inquiry into the meat industry by a Royal Commission, the opinion was generally expressed that the Darling Downs was the most suitable area for profitable lamb-raising. One mixed farmer, with New Zealand experience, stated that there was no better country in the world, and further mentioned that similar country in New Zealand would be worth from £50 to £60 per acre. Another mixed farmer stated that the country he had at Cambooya, near Toowoomba, comprising 750 acres, would raise 1,000 lambs annually. Lambs, averaging 43 lb. (dressed weight), can be raised in five months, and are equal to the best New Zealand product. Quite a number

of mixed farmers have raised lambs which weighed over 60 lb. when dressed, but these are not as popular for the export trade as those weighing from 30 lb. to 40 lb. Lambs can be reared at any period of the year, but the best periods for marketing are August and Christmas, when good prices rule. One of the reasons assigned for the limited development of lamb-raising in Queensland is the want of sufficient freezing facilities. The success of this branch of the Sheep and Wool Industry in the other States of the Commonwealth and in the Dominion of New



Crossbred Sheep at State Agricultural College, Gatton, S.Q.

Zealand is due, in a large measure, to the existence of a number of freezing establishments, which are conducted on the co-operative principle. It is expected that when the State abattoirs are established in Brisbane a decided fillip will be given to lamb-raising for export purposes. Though several mixed farmers consider that the Shropshire-Merino cross is the better one for raising lambs for export, the most favoured crosses with Merino ewes are Lincoln, English Leicester, or Border Leicester rams. In point of fact, an expert suggests Lincoln rams for the first cross, and either Border Leicester or English Leicester rams for the second cross. According to experiments carried out in New South Wales, the Dorset Horn cross is held to be the best for lamb-raising.



WATERCOURSES IN SOUTH-WESTERN QUEENSLAND.

1. *Norindoo Creek, Surat.*
2. *Balonne River, St. George.*
3. *Artesian Bore Lagoon, St. George.*
4. *Artesian Bore Drain, Cunnamulla District.*

Queensland lamb, of good quality, sells readily at satisfactory prices in the London, American, and Eastern markets. In 1916, 140,373 lb. of lamb, or 4,361 carcasses, valued at £3,311, were exported to the United Kingdom from Queensland. The figures for the previous year were:—1,373,715 lb., or 41,675 carcasses, valued at £25,134. From the foregoing figures it will be seen that the lambs exported in 1915 realised over 12s. each, and in 1916 over 15s. each. At the Enoggera markets (Brisbane) last year the top prices obtained for lambs ranged from 30s. 3d. to 46s. 6d. per head. It is almost needless to say that these prices are abnormal, and are due to many causes, the existence of the European war being one of the contributing factors. With the cessation of hostilities, and the return of normal conditions throughout the world, it is fully believed that these prices will not decline to any marked degree.

The principal breeders of fat lambs for market include:—Messrs. J. C. Mayall, Avondale, Pittsworth; St. Helen's Station, Pittsworth; J. T. Stirling, Glenbower, Pittsworth; S. E. Pullen, Wiyarra, near Warwick; and T. Crawford, Yaamba, Jimbour (near Dalby). All of the foregoing holdings are on the Darling Downs (South Queensland). Fat lambs are also raised at the State Agricultural College, Gatton (South Queensland) and Hermitage State Farm, near Warwick (Darling Downs, South Queensland).

STATE ENCOURAGEMENT.

The Government assists in many ways to further the interests of the mixed farmer, grazing farmer, and pastoralists. On the Hermitage State Farm, near Warwick (Darling Downs, South Queensland), Gindie State Farm, Emerald district (Central Queensland), and at the Agricultural College, Gatton (South Queensland), several strains of British sheep are bred, with the idea of demonstrating what breeds are most suitable for wool, mutton, and lamb producers. A number of the animals at these State institutions are pedigreed, and are crossed with other breeds, particularly Merino ewes, in order to produce dual-purpose sheep. The sustenance of the flocks is provided for by the cultivation of artificial grasses, such as paspalum, Rhodes, &c. The advantages of conserving fodder for dry spells are also demonstrated.

Provision is also made by the Government for the handling of the clips of all mixed farmers with small flocks. As a result

of the arrangements made in this respect, the mixed farmers are enabled to get the best market prices for their wool. The conditions under which the Government handle the wool of the mixed farmer are briefly referred to under the heading dealing with "Mixed Farming."

Experiments in connection with the treatment and prevention of the outbreak of diseases in stock are scientifically pursued at the State Stock Experiment Station, Yeerongpilly (South



Scene on the Thomson River, Longreach, C.Q.

Coast Line). Experimental stations have also been established in several districts for the treatment of diseases peculiar to sheep, particularly the blowfly pest. The services of the many experts attached to the State Department of Stock are, at all times, available to the mixed farmer, grazing farmer, and pastoralist.

QUEENSLAND POSSIBILITIES.

To the investor, be he the possessor of a large or small amount of capital, Queensland offers unlimited possibilities. Her territory is immense, and remarkably productive; her land laws are the most liberal in the world; her resources are boundless; progress and prosperity are general; in fact, no

other State in the Commonwealth of Australia holds out such golden opportunities and substantial realities as Queensland. She has room in her vast areas of wealth-producing country for millions of new arrivals, whom she invites to settle within her borders and share the good things which Nature has so lavishly bestowed upon her.

Note.—For a brief account of the experiences of successful settlers in Queensland, see the booklet entitled “Terse Information about Queensland.”

Photographs of notable South Australian and Tasmanian strains of Merino sheep are reproduced in this book as types of the breeds which have been introduced into Queensland. The photographs of these stud sheep, together with one of South Devons, have been furnished by prominent South Australian, Tasmanian, and New South Wales breeders respectively.

Abbreviations.—S.Q. signifies South Queensland; S.W.Q., South-western Queensland; C.Q., Central Queensland; N.Q., North Queensland. The abbreviations are used in connection with the titles of the illustrations.

Acknowledgment.—The Compiler is indebted to the following for information in connection with the writing of this book:—State Sheep and Wool Expert, Supervisor of the Department of Sheep and Wool (Central Technical College), Lands Department, Department of Agriculture and Stock, Brisbane Woolbroking firms, State Statistician, Commonwealth Meteorologist, and a number of pastoralists and grazing farmers in Queensland and the Southern States of the Commonwealth. The map, showing the distribution of sheep and cattle in Queensland, is published by permission of the Queensland Railway Department.

Compiled 7th March, 1918.

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